SONY KV-C2520

MODEL

SERVICE MANUAL

KV-C2521D/C2531D

RM-689

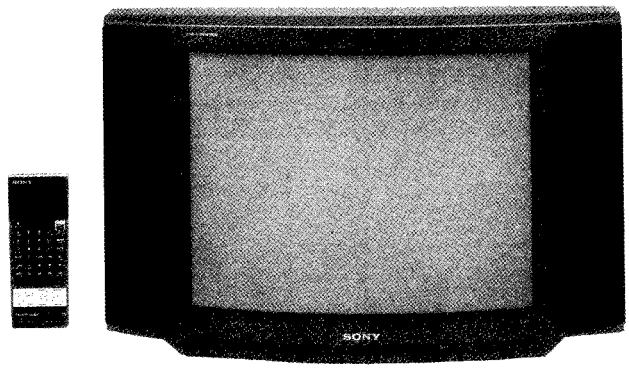
SERVICE MANUAL

AEP Model

KV-C2521D

Chassis No. SCC-D51E-A

Chassis No. SCC-D51D-A



AE-1B CHASSIS

Note: The service manual for RM-689 has been issued separately.

MODELS OF THE SAME SERIES	
KV-C2521D/C2531D	
KV-X2531D	
KV-X2131D	

SPECIFICATIONS

Television system B/G/H

Color system PAL, SECAM, NTSC3.58, NTSC4.43

Channel coverage VHF : E2-E12 UHF : E21-E69
CABLE : S1-S41

Picture tube Trinitron tube
Approx. 63.5 cm (25 inches)
(Approx. 59 cm picture measured diagonally
110-degree deflection

Inputs
- 1 21-pin connector :
  CENELEC standard including RGB input.
- 2 21-pin connector :
  including S video input
- 3 Video, Audio : phono jack.

Outputs
21-pin connector : CENELEC standard
Headphones jack : stereo minijack
External speaker terminals : 2-pin DIN
Audio output jacks : phono jack (output dependent upon TV settings)

Sound output 15 W + 15 W (KV-C2521D)
30 W + 30 W

Power consumption 96 Wh (KV-C2521D)
101 Wh

Dimensions Approx. 769x492x478 mm (w/h/d)

Weight Approx. 37.0 kg (KV-C2521D)
38.0 Kg

Supplied accessories RM-689 Remote Commander (1)
IEC designation R6 batteries (2)

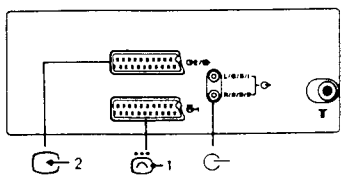
Design and specifications are subject to change without notice.

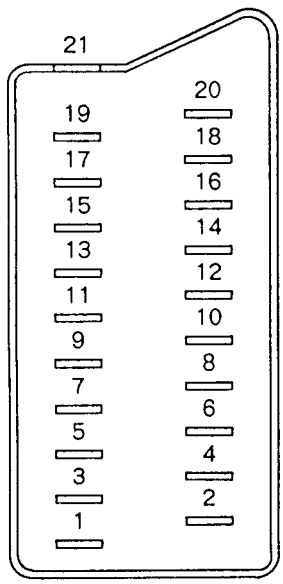
MICROFILM

TRINITRON® COLOR TV

SONY®

21 pin connector (1, 2)





Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V±3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V±3dB, 75ohms, positive
	–	○	(S signal) croma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75ohmes
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
20	○	–	Video input	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
	–	○	Video input/Y (S signal)	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open) * at 20 Hz–20 kHz

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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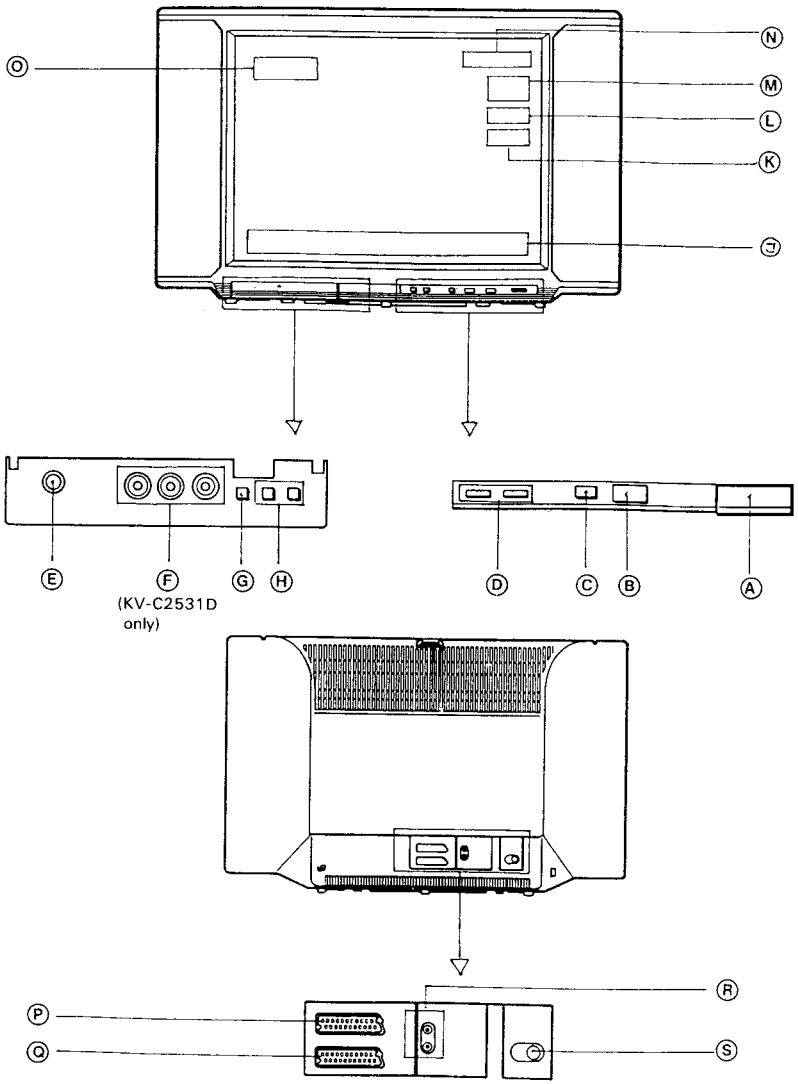
SECTION 1
GENERAL

1-1. FUNCTION OF CONTOROLS



ON THE SET

Ⓐ Power Switch ⏻
Use it to switch the set on and off. When you switch the set on, the programme number of the station tuned in will be indicated in the on-screen display Ⓜ for some seconds. In case of short breaks of operation, you can switch the set on and off using the Remote Commander (See »CONTROLS ON THE REMOTE COMMANDER«).

Ⓑ Remote control detector
(See »CONTROLS ON THE REMOTE COMMANDER«).

Ⓒ ⏻ Standby/Reponse indicator
This indicator lights up when the TV set is in standby mode and it flashes each time the set receives signals from the Remote Commander.

Ⓓ Stereo A/B indicators
During bilingual programmes one of the two indicators lights up, depending upon the selected channel **A** or **B**. When stereo programmes are broadcast both indicators light up. (See »CONTROLS ON THE REMOTE COMMANDER«).

Jacks and control panel (front of set)
The jacks and the control panel are situated behind a cover. Please press the arrow marking on the cover to open it.

Ⓔ Headphones jack (stereo minijack)
Connect only stereo headphones.

Ⓕ Input jacks (KV-C2531D only)
Video input jack (phono jack) **3** (yellow)
Audio input jacks (phono jacks) (red and white).

Ⓖ Mode select button
Use this button to select either the channel select mode, volume adjustment or the input mode.

Ⓗ Adjustment buttons +/–
Select at first the item to be adjusted using the Mode select button Ⓖ (**P**: channel select mode), (volume) or (input mode), then adjust the item by pressing the + or – button.
You can also use these buttons to reset the picture and sound adjustments to the factory-set levels. For this purpose press both buttons simultaneously.

On-screen display
When you repeatedly press button 12 on the Remote Commander, the following information will be indicated on the screen in turn:

Ⓙ Picture and sound adjustment items:
contrast, colour, brightness, bass, treble or balance and their respective levels; as well as mute, reset, space sound, loudness and NICAM indications, when the respective buttons are pressed.

When you press button 10 on the Remote Commander, the following information will be indicated on the screen:

Ⓚ TV-System: I (normal UK broadcast system)

Ⓛ Channel number

Ⓜ Programme number or input mode;
1, , 2, 2, 3;

Ⓝ Indication of the station name

Ⓞ AV output indication; 1, 2, 3 or TV (see »CONTROLS ON THE REMOTE COMMANDER«).

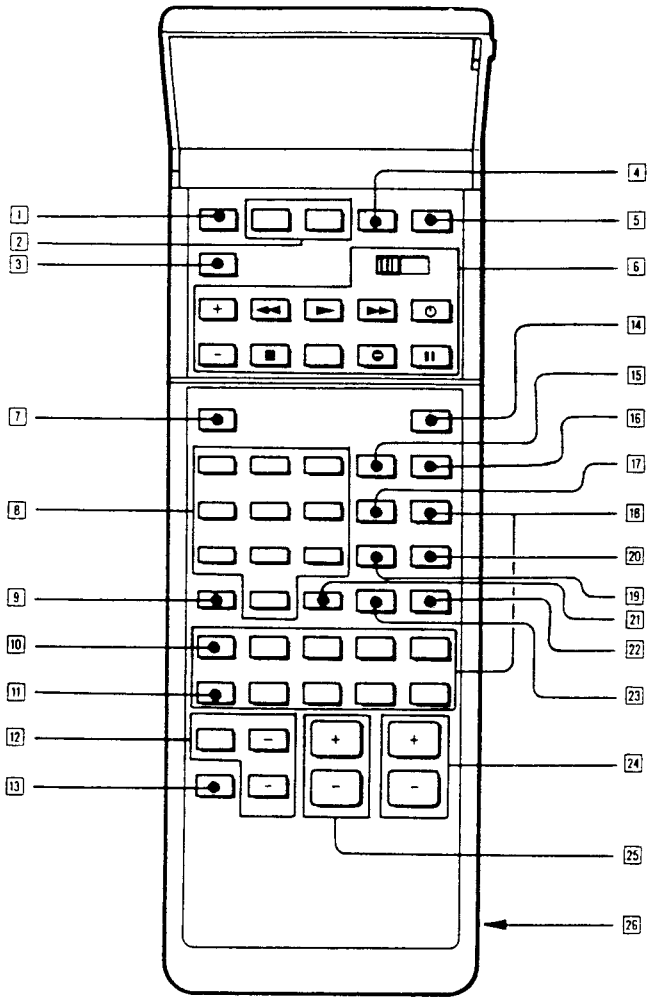
Connectors on the rear

Ⓟ Euro-AV-connector 21-pin 2/2
For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.

Ⓠ Euro-AV-connector 21-pin 1
For connecting a VTR, a computer etc. with RGB output.

Ⓡ Audio-output-jacks (phono jacks)
For connecting audio equipment, e.g. an amplifier, so that the sound will be output at the audio equipment. In this case the volume is adjustable on the TV set.

Ⓢ Aerial terminal



ON THE REMOTE COMMANDER

On the set there is a Remote Control detector (B), which receives the signals of the Remote Commander.

[1] **Preset-button** Used for selecting the Preset mode. See »TO PRESET CHANNELS«.

[2] **Tuning +/– buttons**
a) Preset mode: Used for tuning in stations in the Automatic Station Search: See »TO PRESET CHANNELS«.
b) TV-mode: Used for fine-tuning a station. See »ADDITIONAL FUNCTIONS«.

[3] **C₀₀ button (Clear)**
Used for clearing programme positions, so that the position will be skipped when the PROGR +/– buttons [24] are pressed. See »TO PRESET CHANNELS«.

[4] **Store button:** Used for storing channels. See »TO PRESET CHANNELS«.

[5] **TV-system-select-button**
This button has no function.

[6] **Video selector and video operation buttons**
Used for operating Sony video equipment. For details see »OPERATING OTHER EQUIPMENT«.

[7] **Mute button**
By pressing this button the sound of the set will be switched off and by pressing it once more the sound will be restored.

[8] **Number buttons**
a) Used to select programme positions or to input channel numbers (in the preset mode).
b) If the set is in the standby mode, press one of the number buttons to switch it on.
c) After pressing the output select button the buttons 1–2 can be used to select the different output connectors.

[9] **-/-- Button**
In case of two digit numbers, press first this button and then the two respective number buttons [8].

[10] **Button for On-screen display**
By pressing this button, information about the station tuned-in will be indicated on the screen. The indications will disappear after some seconds with the exception of the programme number and label, which will stay on the screen until the button is pressed once again.

[11] **Time button**
In TV-mode: If teletext service is broadcast on the selected channel, press this button to display the current time on the screen and once again to make it disappear.

[12] **+/– Buttons for picture and sound adjustments**
a) TV-mode:
The picture and sound adjustments are stored as standard values. You have, however, the possibility to change them to your individual liking. Press the button repeatedly until the required item is indicated in the on-screen display: contrast, colour, brightness, hue (only for NTSC colour system), bass, treble or balance. You can adjust the settings by pressing the + or – button.
b) Preset-mode: Use these buttons to name a station. See »TO PRESET CHANNELS«.

[13] **→•← Reset-button**
By pressing this button the picture and sound adjustments are reset to the factory-set levels.

[14] **Standby-button**
Press this button to switch the set into standby-mode. You can switch it on again by pressing the TV-button [16] or one of the number buttons [8]. To return to the teletext mode, press / [18] button. There will be a slight delay before the picture is restored.

Note

Use the Standby-button [14] only when switching the set off for a short period of time. If the set will not be used for a longer span of time, switch it off by using the Power switch (A)

[15] **Input-Select-Button**
Press this button to select the audio- or video-signals input at the various input connectors. With each pressing of the button a different connector is selected. The following indications will appear sequentially:
1 → (RGB) → 2 → 2 → 3
TV Mode

[16] **TV-Button**
When pressing this button the set returns from standby, video input- or teletext mode to the TV-mode.

[17] **Output-Select-Button**
Press this button to select the audio- or video signals to be output at the / connector.
With each pressing of the button a different output source will be selected. The following indications appear sequentially:
1, 2, 3, TV

[18] **Teletext operation buttons**
These buttons are used for teletext operation. See »VIEWING TELETEXT«.

[19] **Loudness button**
By pressing this button the high and low tones will be emphasized. Press the button again to restore the normal sound. The indications on the screen will be (ON) or (OFF).

[20] **A/B button**
To select the audio channel of bilingual programmes. Usually the dubbed version is broadcast on channel **A** and the original sound is broadcast on channel **B.**
In the video input mode (Euro-AV-connectors) this possibility of selecting channels also exists for stereo VTR connection.

[21] **C (Channel select) button**
Use this button for direct channel tuning in the TV-mode. See »ADDITIONAL FUNCTIONS«.

[22] **This button has no function on this set.**

[23] **Space sound button**
Press this button to obtain special acoustic effects. Press it again to restore the normal sound. The indications on the screen will be (on) or (off).

[24] **PROGR +/– buttons**
TV-mode: Use these buttons to scan the available programmmes up- or downwards.
Preset mode: Use these buttons to scan the available channels up or downwards.

[25] **+/– buttons for adjusting the volume**

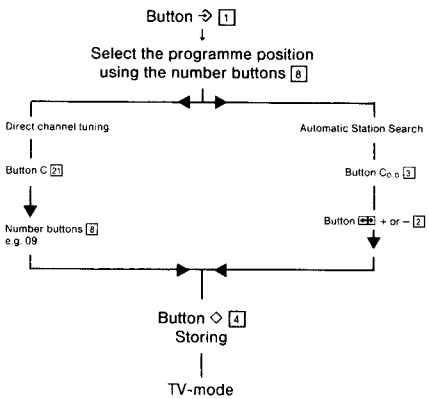
[26] **Battery compartment (on the rear)**

1-2. TO PRESET CANNELS

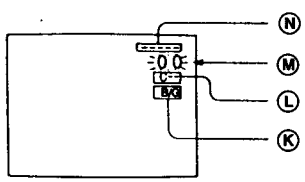
Use the buttons on the Remote Commander for presetting. In total there are 60 programme positions at your disposal for storing channels.
There are two different ways of tuning in channels:

1. Direct Channel Tuning
If you know the channel number of a station you can input it directly.

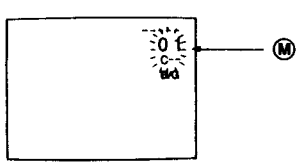
2. Automatic Station Search
The set searches automatically for stations.



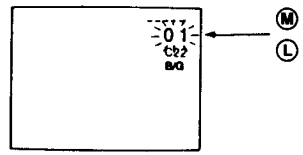
1. Direct Channel Tuning
1. Press the Preset button → 1. You are now in the preset mode of the set. The programme number in the on-screen display Ⓜ starts blinking.



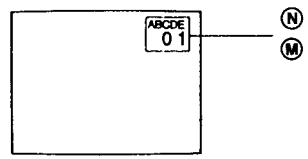
2. With the buttons PROGR +/– 24 or the number buttons 8 you can select the programme position. In case of two-digit numbers, press first the button -/-- 9 and then the two number buttons.



3. Press button **C** 21. The indication »C« and the channel number start blinking in the display Ⓛ. Select the channel number with two digits (e.g. 22) using the number buttons 8.



4. Press the button ◇ 4 in order to store the channel and to return to the TV-mode.



If you want to store further channels, repeat the steps 1 to 4.

2. Automatic Station Search

1. Press button → 1. You are now in the preset mode of the set. The programme number in the on-screen display Ⓜ starts blinking.

2. With the PROGR buttons +/– 24 or the number buttons 8 you can select the programme position. In case of two-digit numbers, first press button -/-- 9 and then the two number buttons.

3. If there is already a stored station on the selected programme position, press button **C** 3.

4. Press one of the tuning buttons ⇔ +/– 2 to start the station search. The search will be interrupted as soon as a station is tuned in. Press the tuning buttons repeatedly until you find the desired station.

5. If you have found the desired station, press button ◇ 4. Now the selected station is stored and you are back in the TV-mode.

6. If you want to store further stations, repeat the steps 1-5.

Skipping of unused programme positions
Using button **C∘∘** 3 you have the possibility to skip unused programme positions (e.g. without a stored station), when pressing the buttons PROGR +/– 24 on the Remote Commander.

1. Press button → 1. You are now in the preset mode of the set.

2. Use the buttons PROGR +/– 24 to select a programme position, which you want to have skipped.

3. Press button **C∘∘** 3.

4. Press button ◇ 4 to store the cleared programme position and to return to the TV-mode.

The skipped programme position still appears when you press the number buttons 8 on the Remote commander.

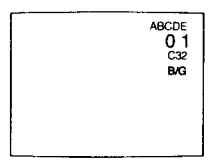
If you want to name a station
After presetting the stations you have the possibility to name them. The selected name will appear in the on-screen display Ⓝ.

1. Press the preset button → 1.

2. Press the button 12. The first column of the station name starts blinking. Press either button + or – 12 and select the desired character (number or letter, 0-9, A-Z, or – for a blank space).

3. Press button 12 again. Now the second column starts blinking and you can select the second character.
In this way five characters can be selected.

4. Press button ◇ 4 to store the station name.



Notes

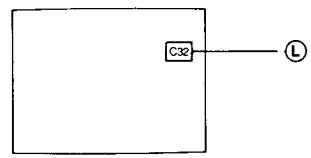
- If you press the preset button → 1 instead of button ◇ 4 the set will return to the TV-mode without storing the channels.
- If you press a wrong programme or a channel number, an »x« will be displayed on the screen.
- When pressing two number buttons, the second number button should be pressed within 5 seconds after the first one, otherwise the operation will be cancelled.

ADDITIONAL FUNCTIONS

Direct Channel Tuning in the TV-mode
You have the possibility to tune in channels directly when the set is in the TV-mode without storing these channels.
Example: If you tune in channel number 32 and then switch the set off or change the programme position, this channel will be cancelled.

1. Press the button **C** 21. In the display Ⓛ the indication »C« will appear.

2. Select the channel number with two digits using the number buttons 8 (e.g. for channel 4 press first 0, then 4). The indication on the screen will disappear within some seconds.



Manual Fine Tuning
If the reception of a channel is not satisfactory, you have the possibility to deactivate the Automatic Fine Tuning, which is usually in operation during presetting in order to tune in the best possible picture.
Press one of the tuning buttons ⇔ +/– 2 to fine-tune a channel. The Automatic Fine Tuning will be restored when the respective programme position is pressed once again.

1-3. VIEWING TELETEXT

To view the teletext service, use the Remote Commander.
The buttons for teletext operation are indicated in green.

Operation

1 Select the TV channel for the desired teletext service. If the signal is weak, teletext errors often occur.

2 Press ▤/◩ (TEXT/MIX) to display the teletext service.

3 Key in the three digits of the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.

The requested teletext page is displayed.

To return to the TV mode, press TV [16] on the Remote Commander.

The teletext service can be displayed directly from the standby mode by pressing ▤/◩ (TEXT/MIX).

To receive the teletext service of a different TV channel

1 Press TV [16] to return to the TV mode.
2 Select the desired TV channel.
3 Press ▤/◩ (TEXT/MIX).

Note

Buttons not referred to in the text do not operate.

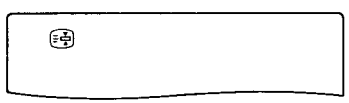
To request the index page
Press ⓘ (INDEX).
If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page
Press ▷ (PAGE +) or ◁ (PAGE −).

To superimpose the teletext display on the picture (MIX)
Press ▤/◩ twice from the TV mode.
Press ▤/◩ again to return to the TEXT display.

To suppress the teletext display so that the picture is restored
Press ⓧ (text clear). This button can be operated from both the text and mix displays.

To prevent a teletext page from being updated/changed
Press ✋ (HOLD). The HOLD symbol appears on the screen.
To resume normal teletext reception, press ▤/◩ (TEXT/MIX).

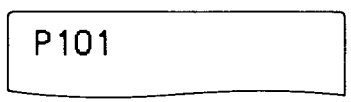


To resume normal teletext reception, press ▤/◩.

To enlarge the teletext display
Press ⇕ once to enlarge the upper half of the display; press again to enlarge the lower half of the display. And press again to return to the normal display.

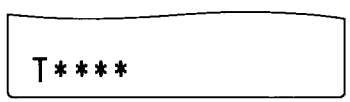
To reveal concealed information such as answers to a quiz
Press ? (REVEAL).
Press again to conceal the answers.

To watch the TV programme while waiting for a requested page to be displayed
1 Request the new page.
2 Press ⓧ to watch the TV programme.
The requested page number and other data appear at the top of the screen. When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.

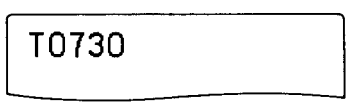


To view this page, press ▤/◩.

To have a requested page displayed at a pre-determined time
1 Request a time coded page (e.g. alarm page).
2 Press TO (TP ON).
" T✱✱✱✱ " will appear at the bottom of the screen.



3 Enter your request time with the number buttons, using four digits. For example, 07.30:



To watch the TV programme until the requested time, press ⓧ (TEXT CL). At the requested time, the page number will be displayed at the bottom of the screen.
To view this page, press ▤/◩.
To cancel the request, first ensure that the teletext page is displayed, then press TO (TP OFF).

FASTEXT Operation

FASTEXT Teletext enables you to access pages quickly and conveniently with one key operation.

When a FASTEXT page is broadcast a colour coded menu will appear at the bottom of the screen. Each coloured prompt relates to the coloured keys on the Remote Commander. Pressing one of these will select the page described by the prompt.

Selection may also be made by entering the three digit page number in the normal way.

Correct FASTEXT operation relies on the necessary signals being transmitted by the Broadcasting Authorities. It is possible that some Broadcasters will not support this transmission.

If FASTEXT is not transmitted, the decoder will operate as outlined above.

1-4. OPERATING OTHER EQUIPMENT

To view the input picture
Press the ⊃ [15] button repeatedly until the desired input signal indication appears on the screen.

⊃ **1:** to view the audio and video signal input through the ⊃ **1** connector on the rear.

⊃ **1:** to view the RGB signal (i.e. from a computer, etc.) input through the ⊃ **1** connector.

⊃ **2:** to view the audio and video signal input through the ⊃ **2/**⊃ connector on the rear.

⊃ **2:** to view the S video signal (from a VTR equipped with an S video output) input through the ⊃ **2/**⊃ connector.

⊃ **3:** to view the audio and video signal input through the ⊃ **3** connectors and the audio input jacks ⊃ (yellow, white and red) on the front.

You can also select the desired input mode using the buttons on the front of the set. Select the ⊃ mode with the mode select (P → ◿ → ⊃) button Ⓖ then press +/− button.

To return to the TV mode, press the TV-button [16].

To select the signal to be output from the ⊃ 2/⊃ connector
Press the ⊃ button [17] repeatedly until the desired output source is indicated on the screen:

1 ⊃: The audio and video signal input through the ⊃ **1** connectors is output from the ⊃ **2/**⊃ connector.

2 ⊃: The audio and video signal input through the ⊃ **2/**⊃ connector is output from the ⊃ **2/**⊃ connector.

3 ⊃: The audio and video signal input through the ⊃ **3** connectors is output from the ⊃ **2/**⊃ connector.

TV ⊃: The audio and video signal input through the ⊤ aerial terminal (i.e. usually the TV signal) is output from the ⊃ **2/**⊃ connector.

The indication will disappear after a few seconds.

Note

The TV-signal is always output at the EURO-AV connector ⊃ **1.**

To operate Sony video equipment
The video operation buttons [6] on the Remote Commander can operate certain VTRs and video disc players manufactured by Sony.

1. Switch the video selector to the desired position.
VIDEO 1: to operate Sony Betamax VTR and SLV 202 VHS.
VIDEO 2: to operate Sony 8 mm VTR.
VIDEO 3: to operate Sony VHS VTR.
MDP: to operate Sony video disc player including a multi disc player.

2. Press the operation button(s) to start operation.
PROGR +/−: to select the desired programme on the VTR.

▶ : to start playback, or to release the pause mode

■ : to stop the tape or the disc

◀◀ : to rewind the tape from stop mode or to rapidly go back to the desired position on the disc or tape from playback mode

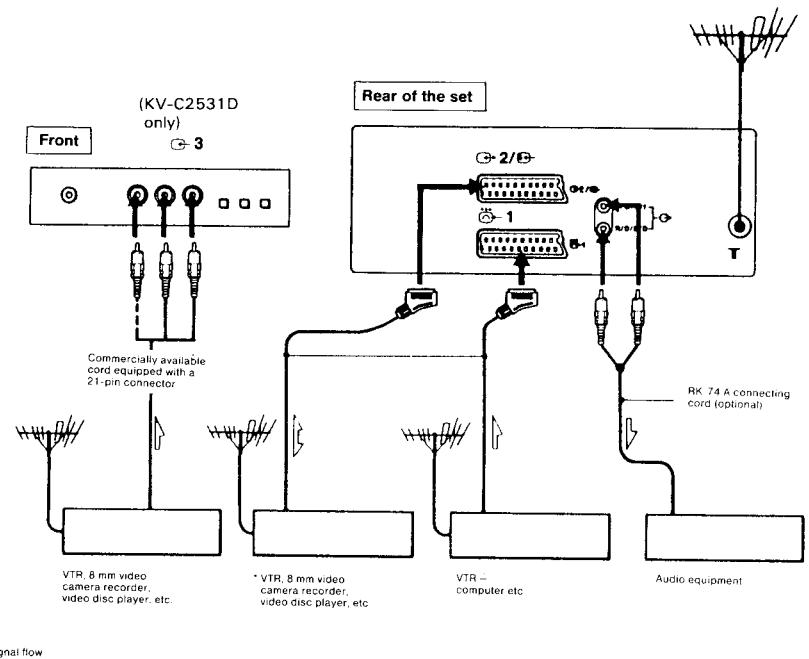
▶▶ : to fast forward wind from stop mode or rapidly advance the tape or disc to the desired position from playback mode

● : to start recording on the VTR
Be sure to press this button and the one on the right simultaneously

⏻ : to switch the video equipment on and off

■■ : to stop the tape or the disc temporarily (pause)
Press again to release pause mode

1-5. CONNECTING OTHER EQUIPMENT



* Connect the S video output of the VTR, etc. here.

Notes

- It is also possible to connect a VTR using the ⊼ terminal. In this case, connect the aerial to the aerial terminal of the VTR.
- Move the VTR away from the TV if the picture or the sound is distorted.
- Computers which have RGB output only can be connected to the 1 input connector.

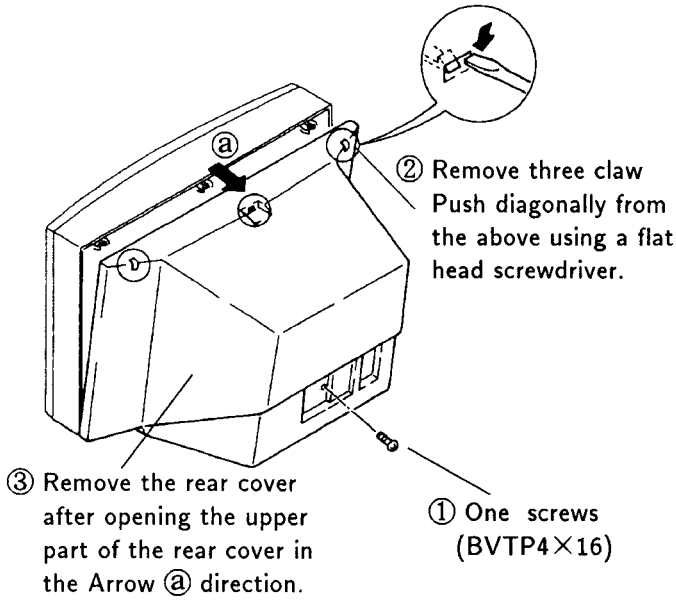
S video input (Y/C input)

Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Usually these two signals are combined in a VTR and output as one signal, and supplied to a TV. Separation of the Y and C signals prevents them from interfering with one another, thereby improving picture quality (especially in luminance).
This set is equipped with a S video input through which these separated signals can be input directly.
Connect the S video output jack on the VTR to the S video input on this set.

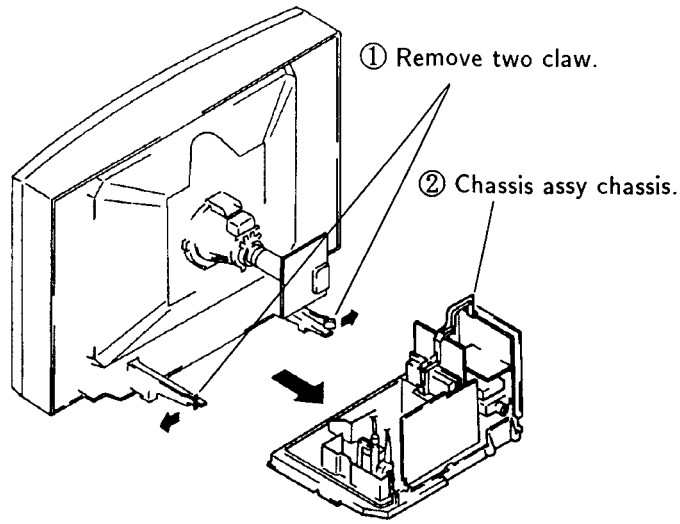
Note: Not all VTR's are equipped with S video output capability. (Refer to VTR operating manual.)

SECTION 2
DISASSEMBLY

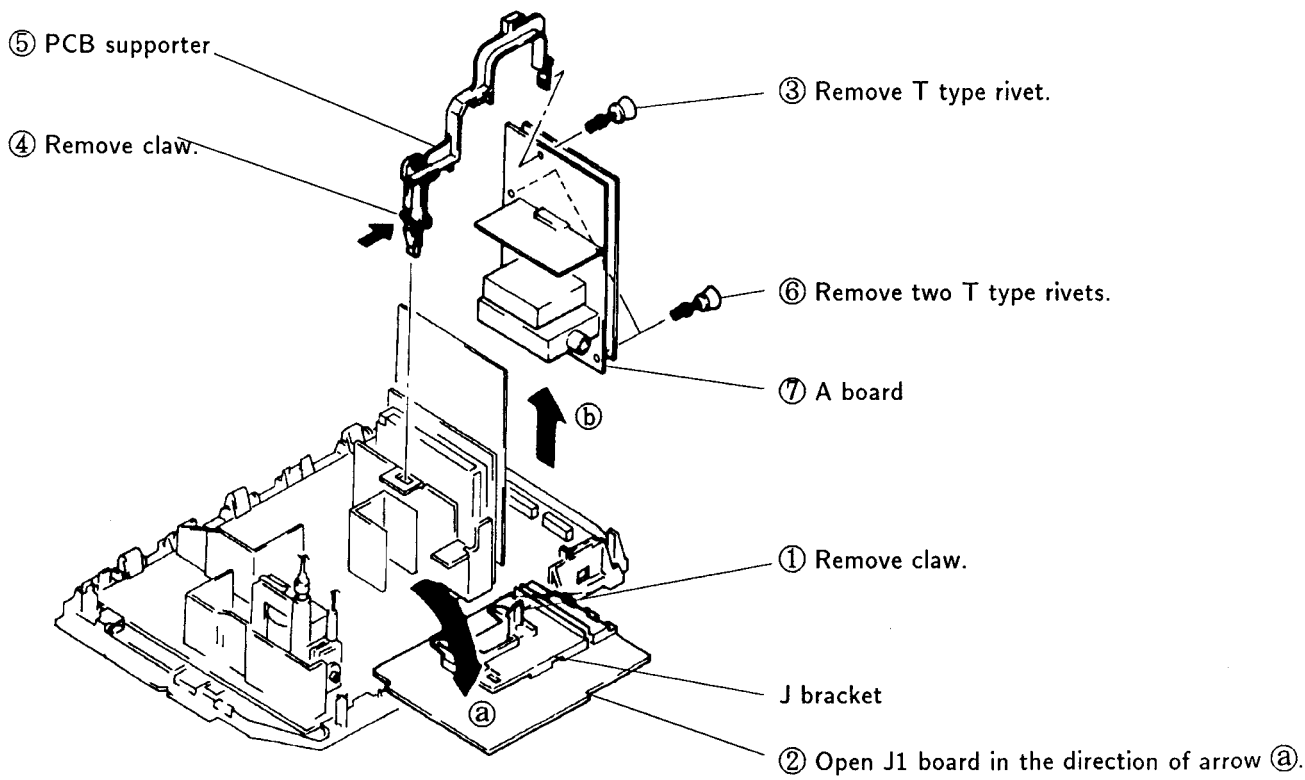
2-1. REAR COVER REMOVAL



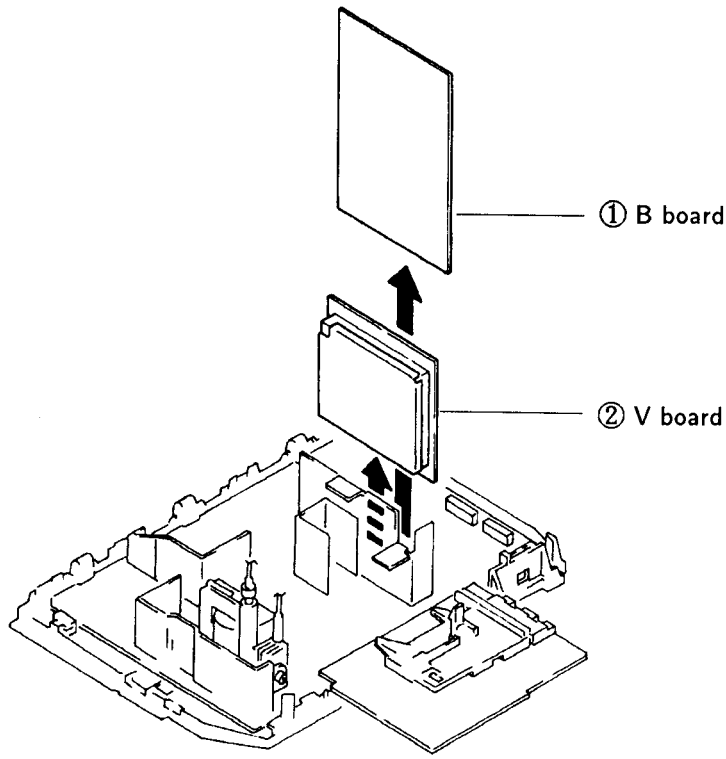
2-2. CHASSIS ASSEMBLY REMOVAL



2-3. A AND J1 BOARDS REMOVAL

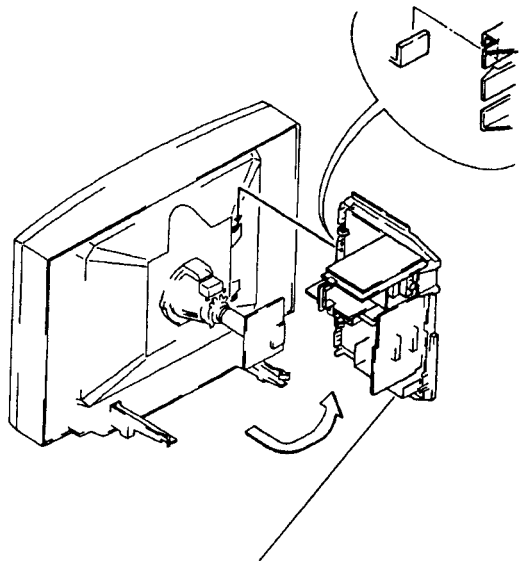


2-4. B AND V BOARDS REMOVAL



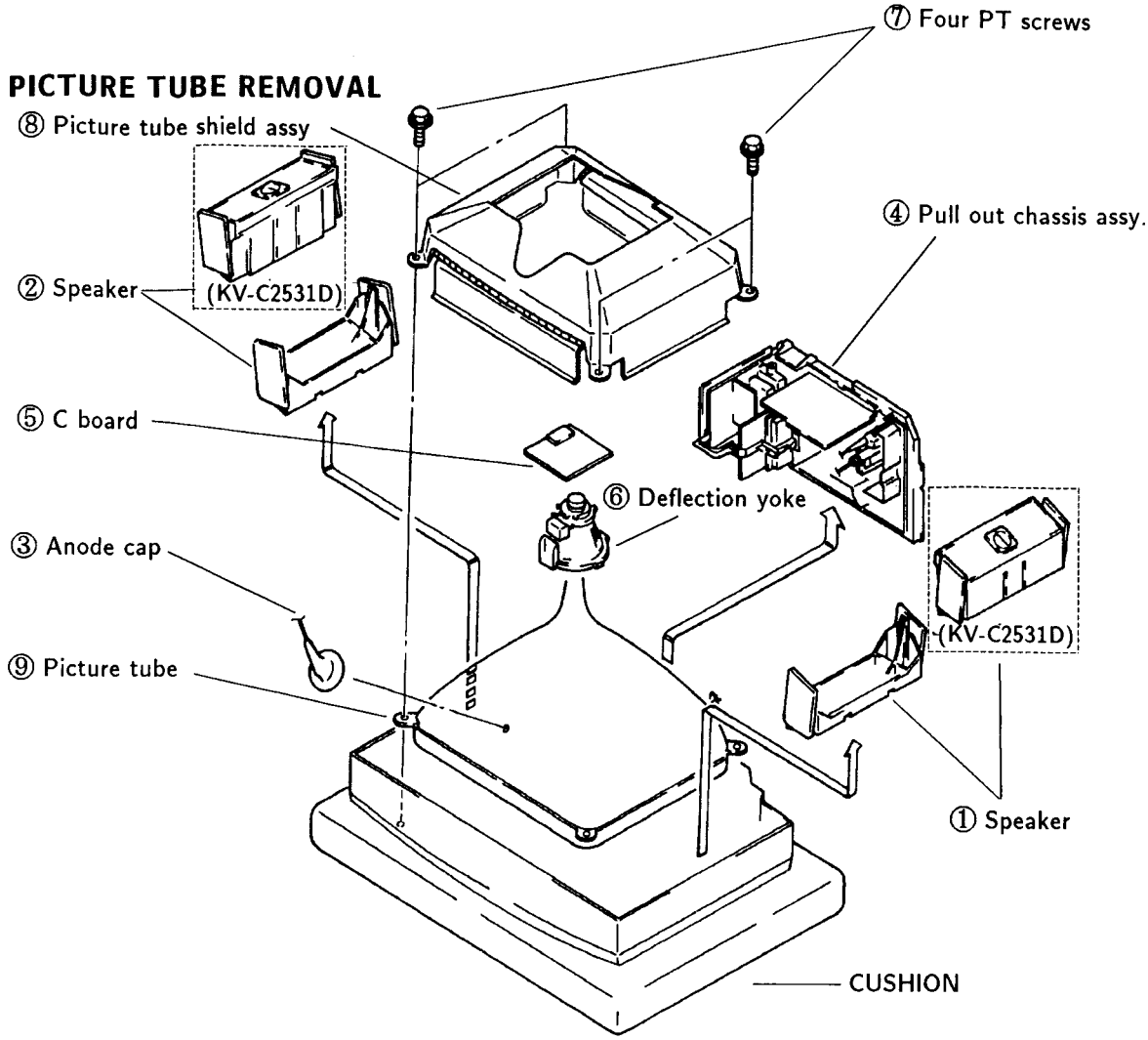
2-5. SERVICE POSITION

* Remove the connector bracket and then perform the following servicing.
(Refer to 2-2. CHASSIS ASSEMBLY REMOVAL.)



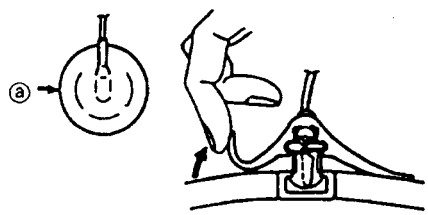
Remoce main chassis in the arrow direction.

2-6. PICTURE TUBE REMOVAL

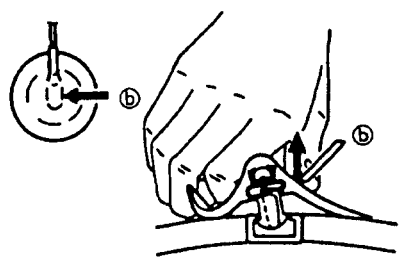


· REMOVAL OF ANODE-CAP

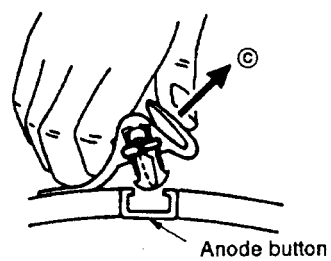
· REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



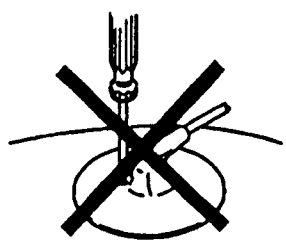
③ When one side of the rubber cap is separated from the anode button, the snode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

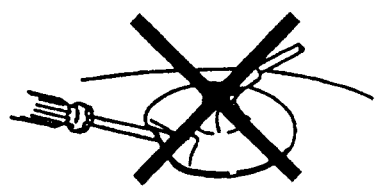
· HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECITON 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
  - ◑ Contrast ·····80%
    (or remote control normal)
  - ☼ Brightness ·····50%
- Carry out the following adjustments in this order:
  1. Beam landing
  2. Convergence
  3. Focus
  4. White balance

Note : Testing equipment required
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :
- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast, Bightness } normal
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.
   (See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctry in all the corners, use a magnet to adjust it.
   (See Figure 3-4.)

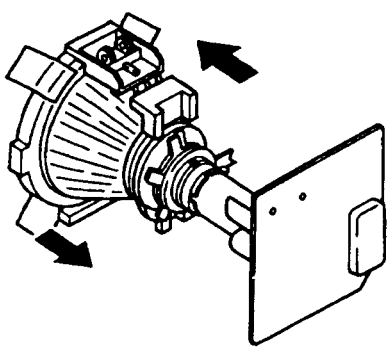


Fig. 3-1

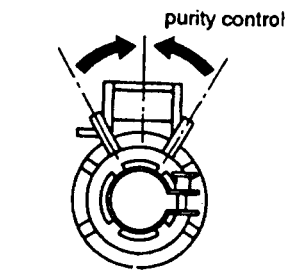


Fig. 3-2

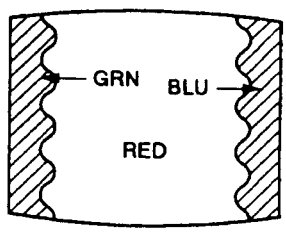


Fig. 3-3

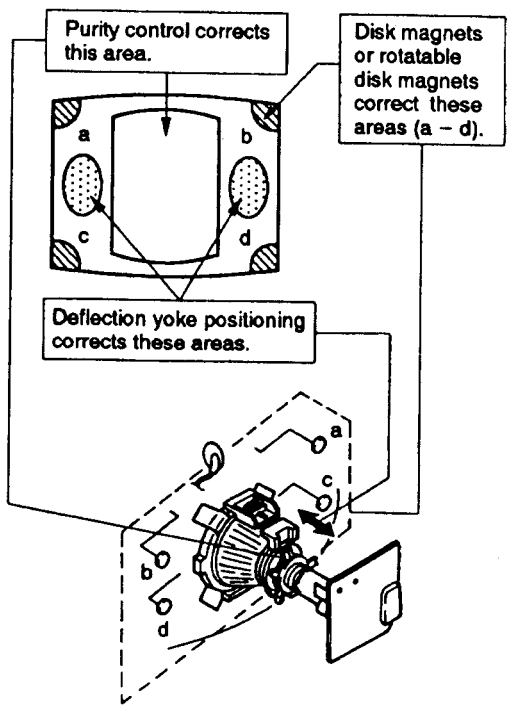


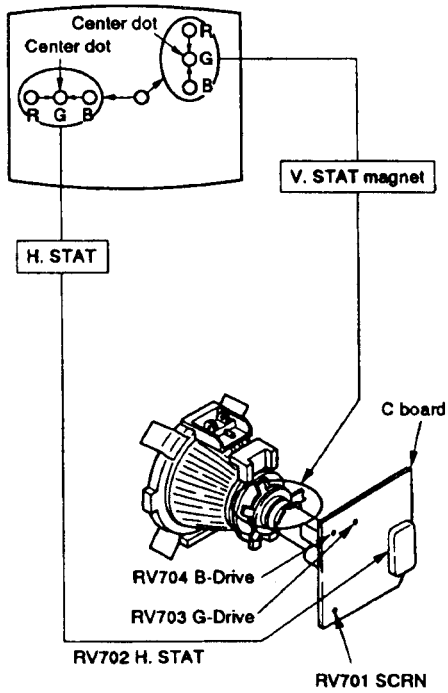
Fig. 3-4

3-2. CONVERGENCE

Preparations :

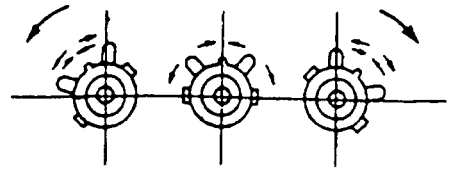
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

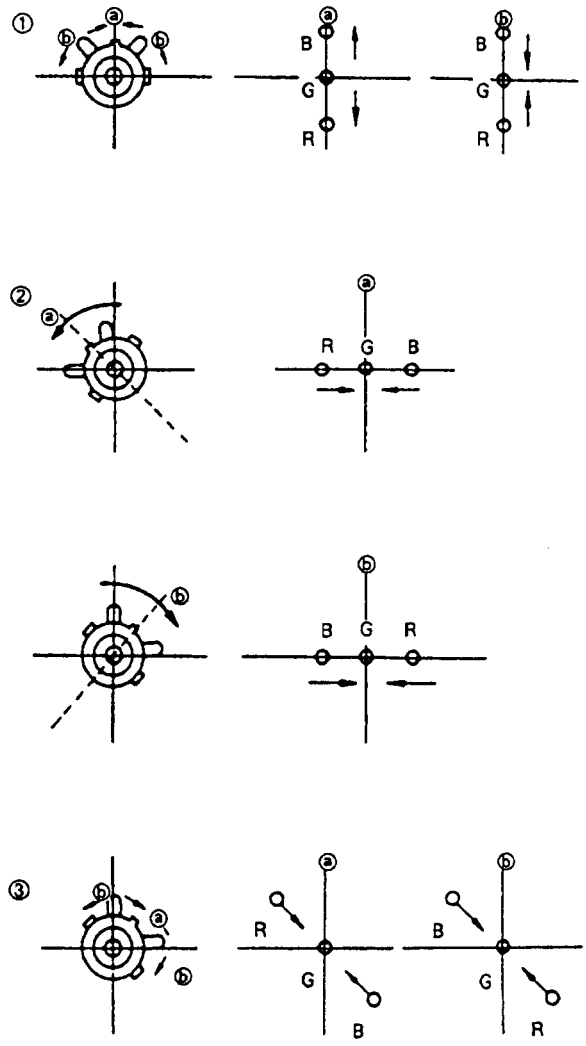


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor can not bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other's settings.)

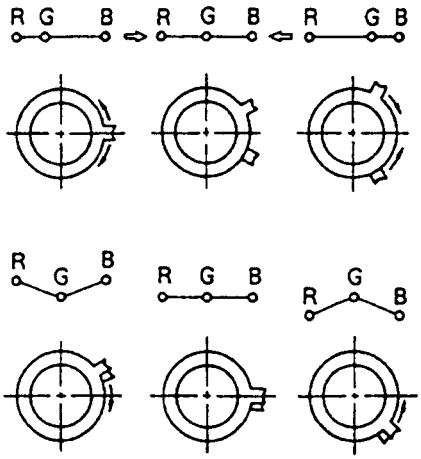
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

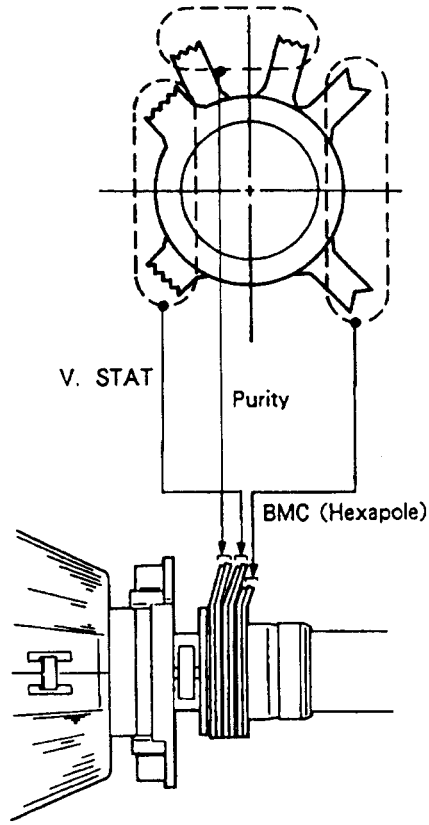


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet





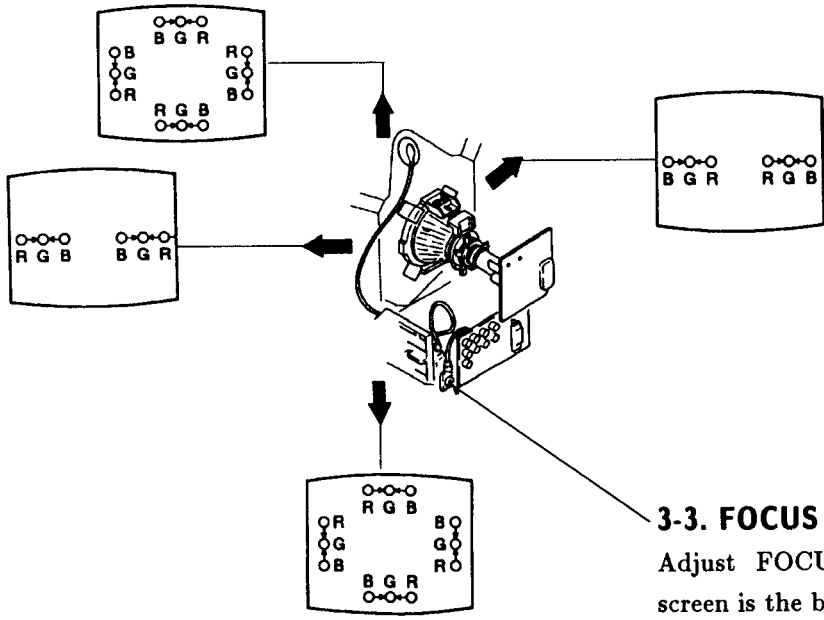
- The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) Dynamic convergence adjustment

Preparations :

Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

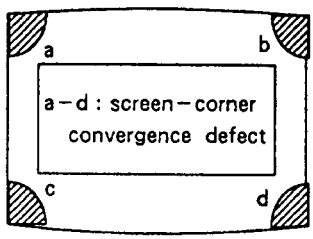
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the defelection yoke spacer.

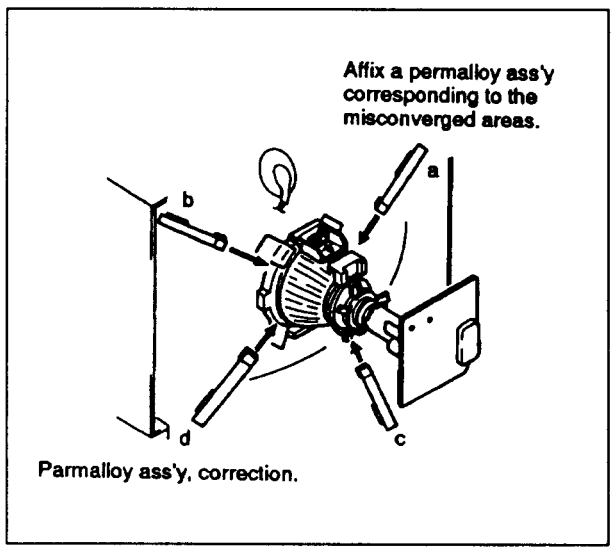


3-3. FOCUS

Adjust FOCUS so that the whole screen is the best focus.

(3) Screen corner convergence





3-4. WHITE BALANCE

[Screen G2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

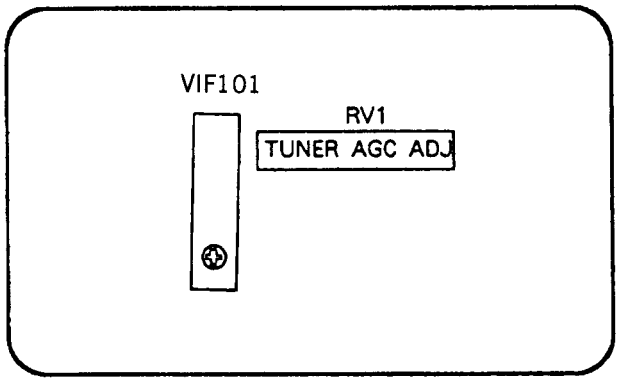
[White balance adjustment]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. A BOARD ADJUSTMENT

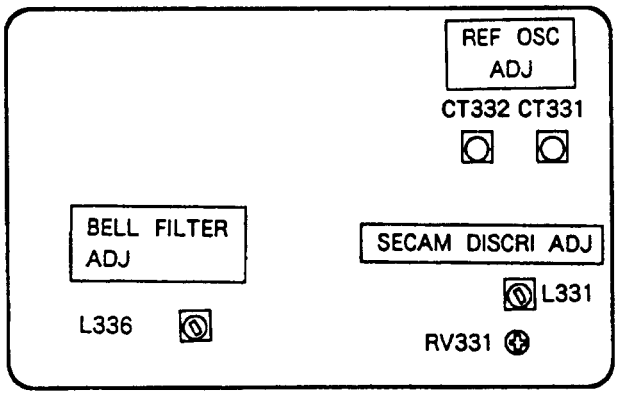


(COMPONENT SIDE)

TUNER AGC ADJUSTMENT (VIF101, RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

4-2. B BOARD ADJUSTMENTS



(COMPONENT SIDE)

REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8MHz)

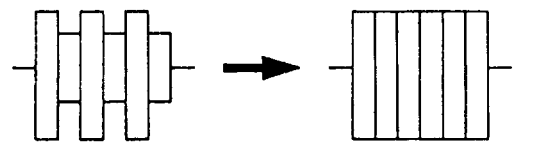
1. Input a PAL color bar signal.
2. Ground pin ⑰ of the IC331.
3. Adjust CT332 to obtain synchronization.

REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16MHz)

1. Input an NTSC color bar signal.
2. Ground pin ⑰ of IC331.
3. Adjust the CT331 to obtain synchronization.
4. Remove the jumper grounding pin ⑰ of IC331.

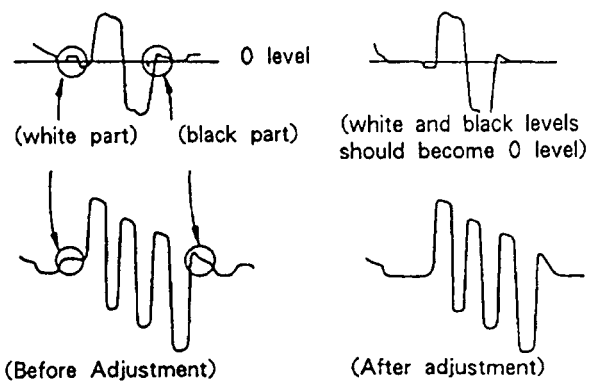
BELL FILTER ADJUSTMENT (L336)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.

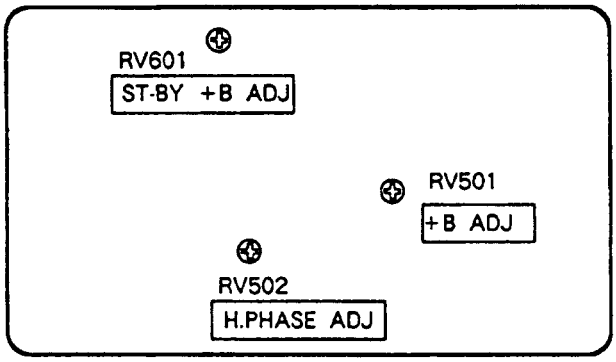


DISCRIMINATION ADJUSTMENT (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to pin ① of IC331.
3. Adjust RV331 so that the white and black sections of the waveform at pin ① come to the 0 level.
4. Connect the oscilloscope to pin ③ of IC331.
5. Adjust L331 so that the white and black sections of the waveform at pin ③ come to the 0 level.



4-3. D BOARD ADJUSTMENTS



+B ADJUSTMENT (RV501)

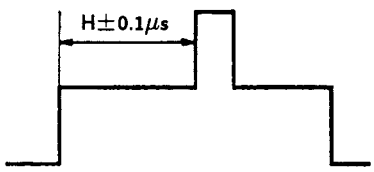
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain 135±0.2V.

ST-BY +B ADJUSTMENT (RV601)

1. Put the system into ⏻ standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain 135±3V.
4. Take the system out of ⏻ standby mode (remote commander).

H.PHASE ADJUSTMENT (RV502)

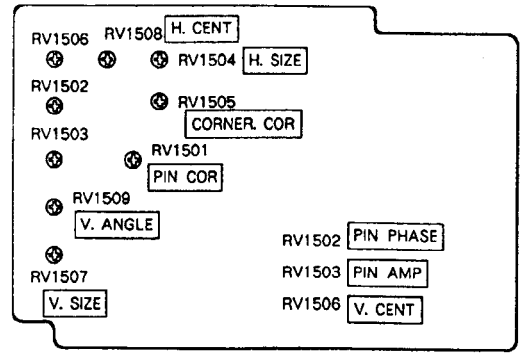
1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical center.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC 501.
5. Rotate RV502 to adjust to H±0.1μs.
   See below table for the H value.



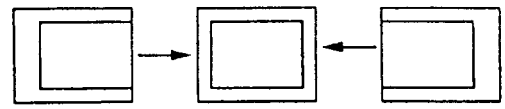
Standard of H.Phase

Model Size	H
21"	5.6μs
25"	5.1μs
29"	5.5μs

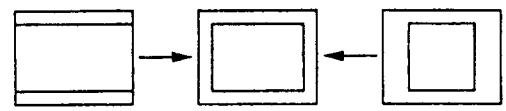
4-4. J1 BOARD ADJUSTMENTS



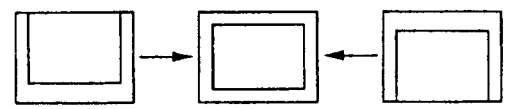
RV1508
H. CENT (HORIZONTAL CENTER)



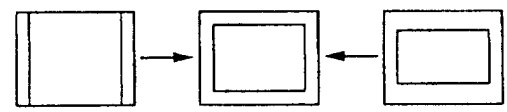
RV1504
H. SIZE (HORIZONTAL SIZE)



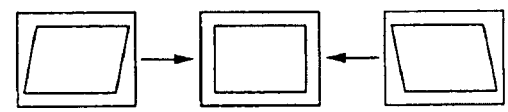
RV1506
V. CENT (VERTICAL CENTER)



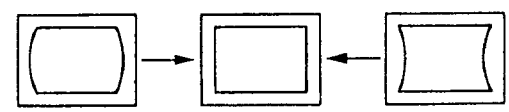
RV1507
V. SIZE (VERTICAL SIZE)



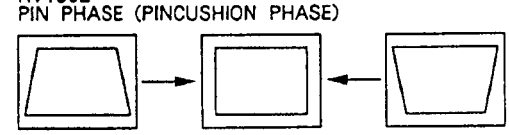
RV1509
V. ANGLE (VERTICAL ANGLE)



RV1503
PIN AMP (PINCUSHION AMPLIFIER)

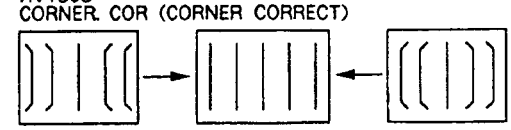


RV1502
PIN PHASE (PINCUSHION PHASE)

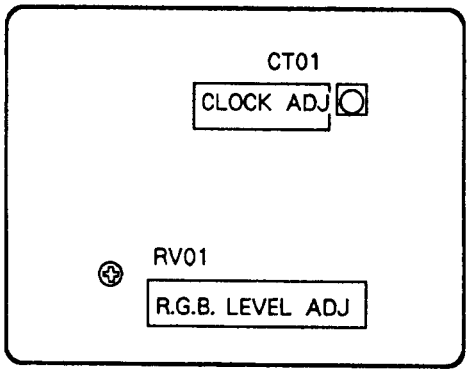


RV1501
PIN. COR (PINCUSHION CORRECT)

RV1505
CORNER COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENTS



CLOCK ADJUSTMENT (CT01)

1. Remove the pin ③ of V-01 connector.
2. Put the system into text mode.
3. Adjust CT01 so that the picture does not move.

RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

4-6. SECONDARY ADJUSTMENT

SUB BRIGHTNESS ADJUSTMENT

1. Set the system to receive a test pattern.
2. Press →•← on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Minimize the ◑ contrast setting.
6. Adjust the ☼ brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
7. Depress the ◇ (store) button of the remote commander.
   (SUB mode is released)

If there is no test color pattern

1. Set the system to receive a color pattern.
2. Press on the remote commander to put system into normal mode.
   Set the ◑ color to its normal state.

3-5. are the same as above.

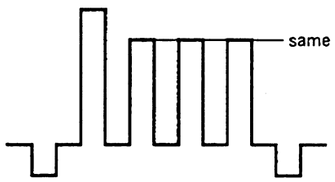
6. Since 20 IRE is nearly blue, adjust the ☼ brightness control so that the blue barely glows.

7. is the same as above.

8. Press →•← on the remote commander to put the system into normal mode.

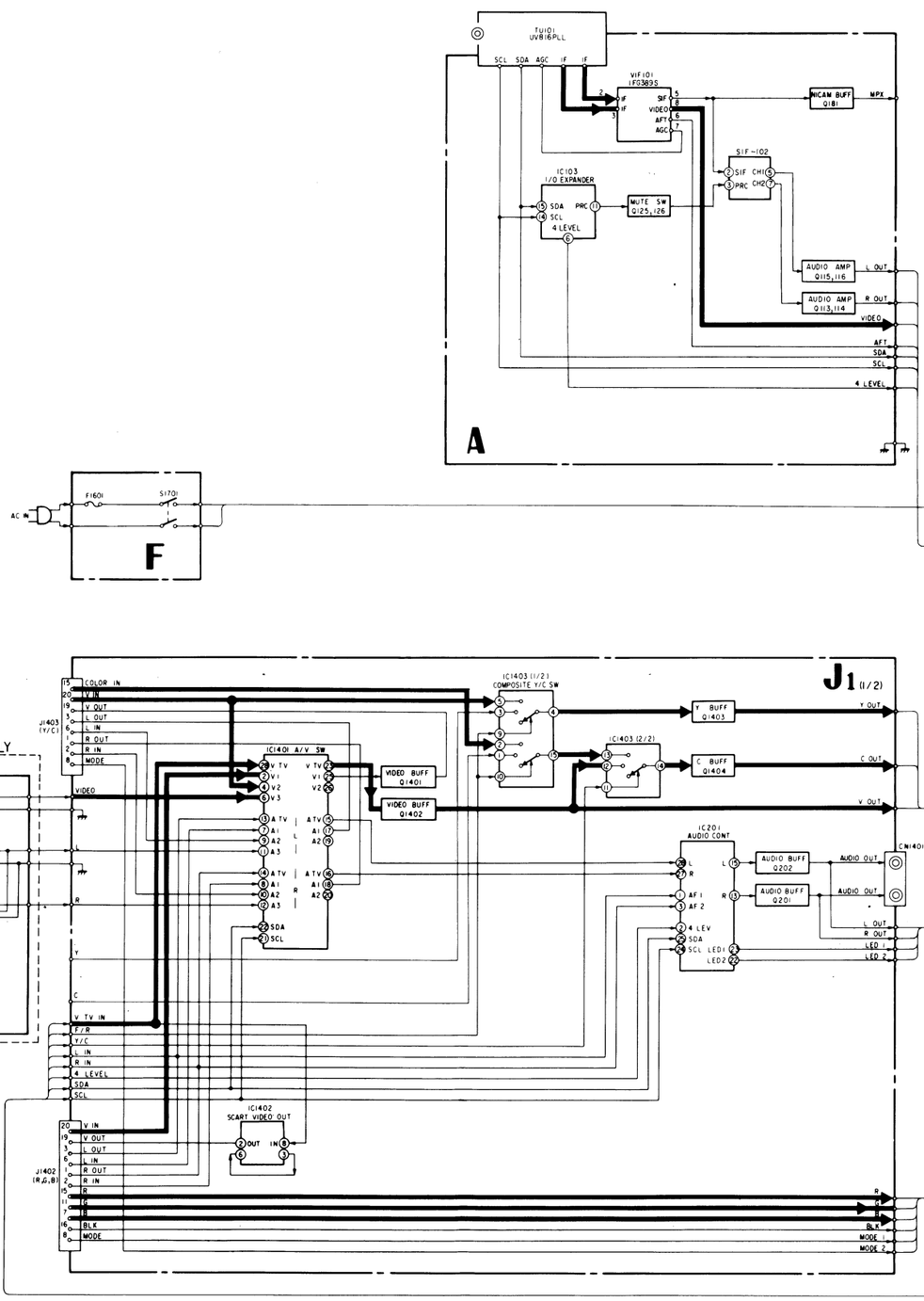
SUB COLOR ADJUSTMENT

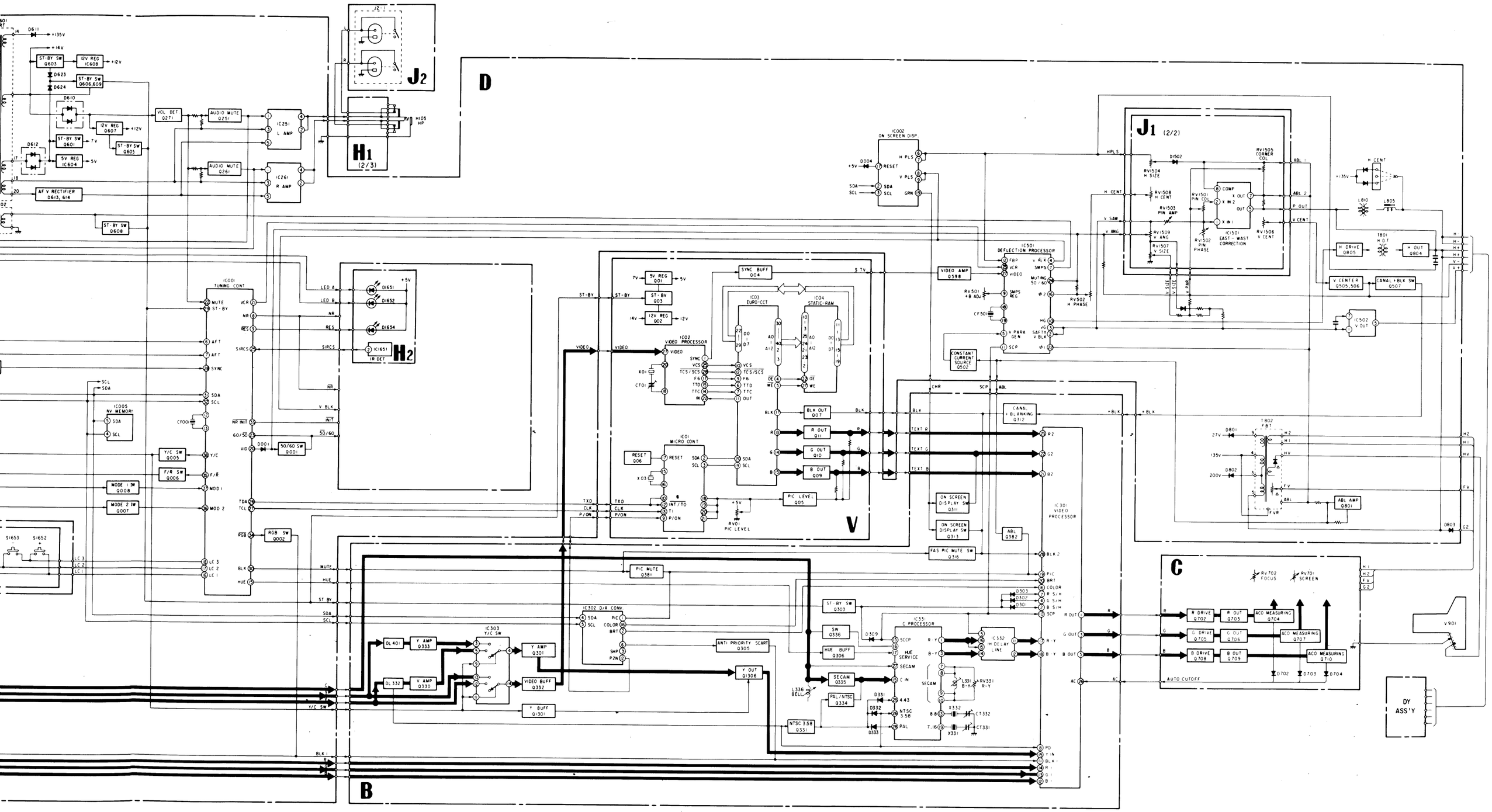
1. Set the system to receive color bars.
2. Press →•← on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjustment buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Adjust the color control so that the B out waveform (pin ② of C board connector CNC72) is as shown in the figure below.
6. Depress the ◇ (store) button of the remote commander. (SUB mode is released)



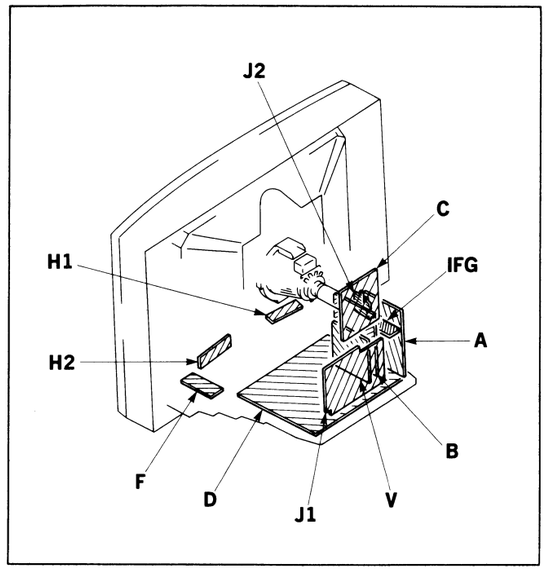
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM




D
J2
H1 (2/3)
J1 (2/2)
V
C
B
IC002 ON SCREEN DISP.
IC501 DEFLECTION PROCESSOR
IC001 TUNING CONT
IC005 NV MEMORY
IC303 Y/C SW
IC302 D/A CONV.
IC01 MICRO CONT
IC02 VIDEO PROCESSOR
IC03 EURO-CCT
IC04 STATIC-RAM
IC33 C PROCESSOR
IC332 1H DELAY LINE
IC30 VIDEO PROCESSOR
IC251 L AMP
IC261 R AMP
VIDEO AMP Q598
SYNC BUFF Q04
BLK OUT Q07
R OUT Q11
G OUT Q10
B OUT Q09
PIC LEVEL Q05
ON SCREEN DISPLAY SW Q311
ON SCREEN DISPLAY SW Q313
F&S PIC MUTE SW Q316
CANAL + BLANKING Q312
ABL Q382
ABL AMP Q801
H DRIVE Q805
H OUT Q804
V CENTER Q505,506
CANAL + BLK SW Q507
CONSTANT CURRENT SOURCE Q502
IC502 V OUT
R DRIVE Q702
R OUT Q703
G DRIVE Q705
G OUT Q706
B DRIVE Q708
B OUT Q709
ACO MEASURING Q704
ACO MEASURING Q707
ACO MEASURING Q710
AUTO CUTOFF
DY ASS'Y
V901
RV702 FOCUS
RV701 SCREEN
T802 FBT
T801 H.O.T
L810
L805
D611 +135V
+14V
12V REG IC608 +12V
12V REG Q607 +12V
5V REG IC604 5V
AF V RECTIFIER D613, 614
VOL DET Q271
AUDIO MUTE Q251
AUDIO MUTE Q261
ST-BY SW Q603
ST-BY SW Q606,609
ST-BY SW Q601
ST-BY SW Q605
ST-BY SW Q608
D623
D624
D610
D612
5V REG Q01
ST-BY Q03
12V REG Q02
7V
+5V
+12V
DI651
DI652
DI654
IR DET. IC1651
H2
LED A
LED B
SIRCS
NR
RES
V BLK
INIT
50/60
50/60 SW Q001
DD01
DD04
RESET Q06
RGB SW Q002
MUTE
HUE
ST BY
SDA
SCL
Y/C SW Q005
F/R SW Q006
MODE 1 SW Q008
MODE 2 SW Q007
CF001
S1653
S1652
LC 3
LC 2
LC 1
Y AMP Q301
Y AMP Q333
VIDEO BUFF Q332
Y BUFF Q1301
DL 401
DL 332
V AMP Q330
PIC MUTE Q381
ST-BY SW Q303
SW Q336
HUE BUFF Q306
SECAM Q335
PAL/NTSC Q334
NTSC 3.58 Q331
ANTI PRIORITY SCART Q305
Y OUT Q1306
L336 BELL
D309
D331
D332
D333
X331
X332
CT331
CT332
RV331 R-Y
L331 B-Y
D303
D302
D301
TXD
CLK
P/ON
PIC LEVEL
RV01 PIC LEVEL
H PLS
V PLS
SDA
SCL
RESET
H CENT
V SAW
V ANG
V SIZE
V PAR
H PHASE
V CENTER
V PHASE
RV1504 H SIZE
RV1508 H CENT
RV1503 PIN AMP
RV1509 V ANG
RV1507 V SIZE
RV1505 CORNER COL
RV1501 PIN COL
RV1502 PIN PHASE
RV1506 V CENT
IC1501 EAST-WAST CORRECTION
DI502
ABL 1
ABL 2
P OUT
V CENT
RV501 +B ADJ
CF501
RV502 H PHASE
SMPS REG
MUTING 50/60
SAFTY V BLK
V PARA GEN
SCP
CHR
ABL
BLK
TEXT R
TEXT G
TEXT B
R
G
B
AC
D801
D802
27V
135V
200V
D803
+BLK
H1
H2
HV
FV
G2
R OUT
G OUT
B OUT
R Y
B Y
PIC
BRT
COLOR
R S/M
G S/M
B S/M
PD
Y IN
BLK I
R I
G I
B I
H1
H2
F V
G2

5-2. CIRCUIT BOARDS LOCATION



Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm Rating electrical power : 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000k Ω
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B.unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B + line.
- : signal path.

Reference information

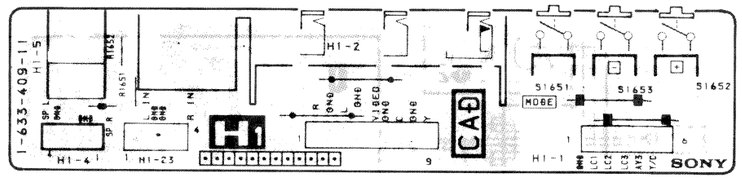
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ✱	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

H1 [CONTROL SW, AV INPUT, HEADPHONE] **H2** [SIRCS RECEIVER, INDICATOR] **F** [LINE FILTER, DGC]

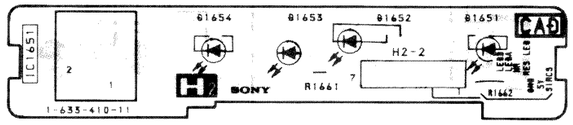
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

—Conductor Side—

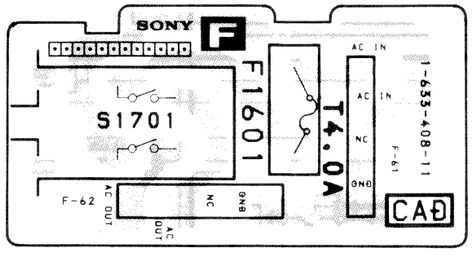
—H1 Board—



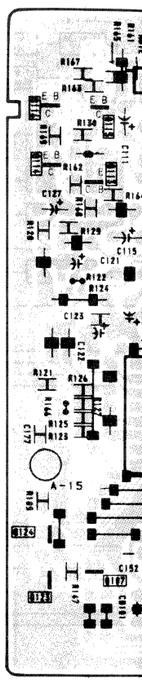
—H2 Board—



—F Board—

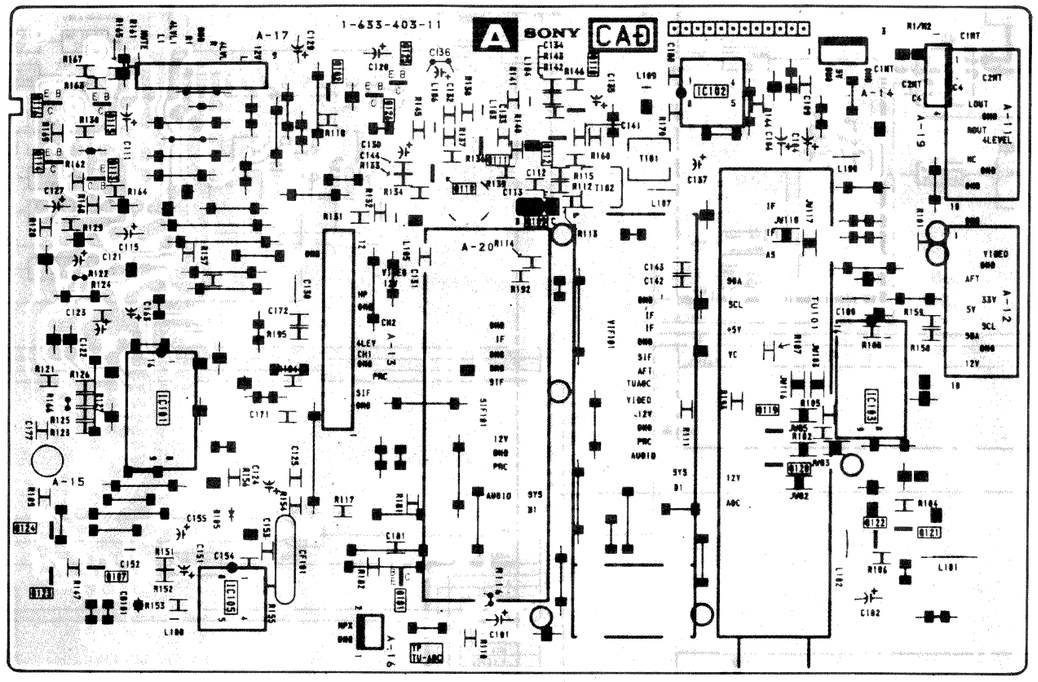


—A Board—

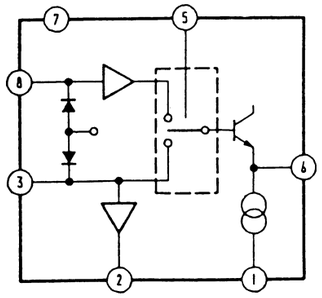


A [TUNER, SIF, VIF]

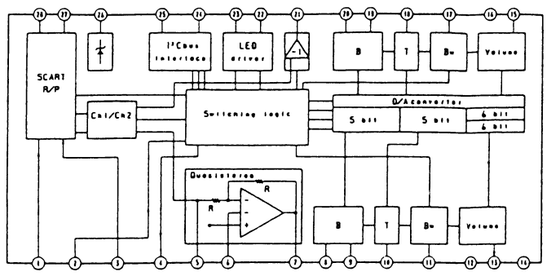
—A Board—



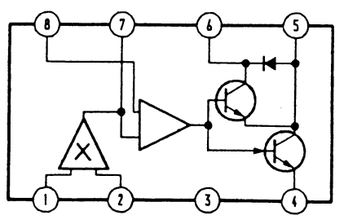
J1 BOARD IC1402 TEA2014A



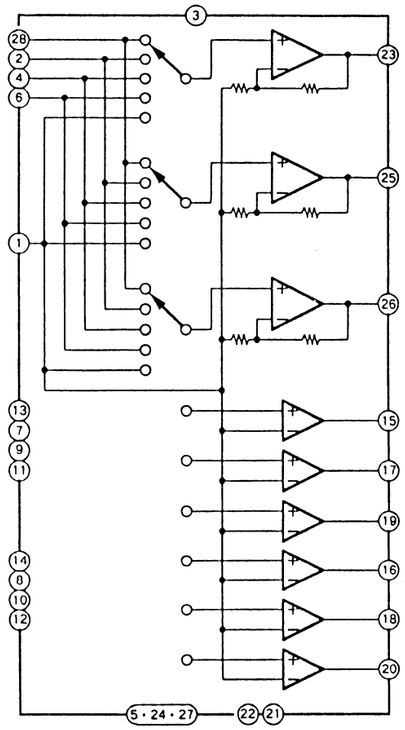
J1 BOARD IC201 TDA6200



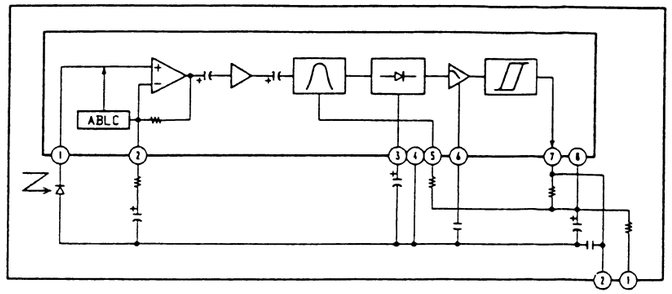
J1 BOARD IC1501 TEA2031



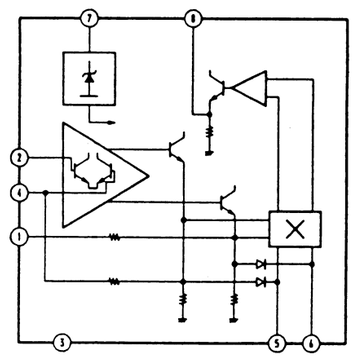
J1 BOARD IC1401 CXA1114P



H2 BOARD IC1651 BA1387

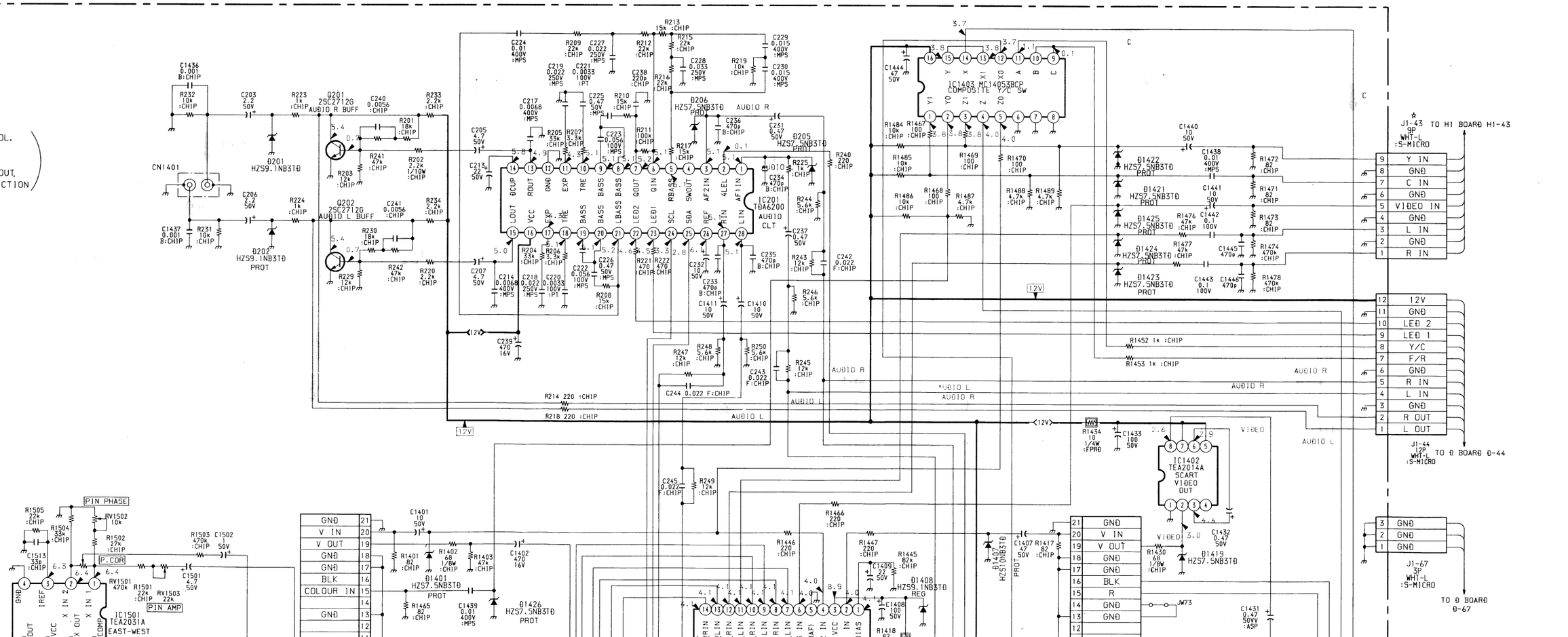


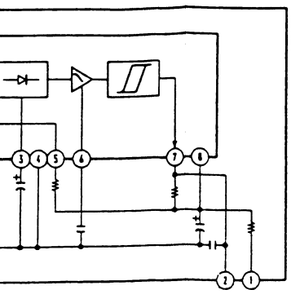
A BOARD IC105 TBA129

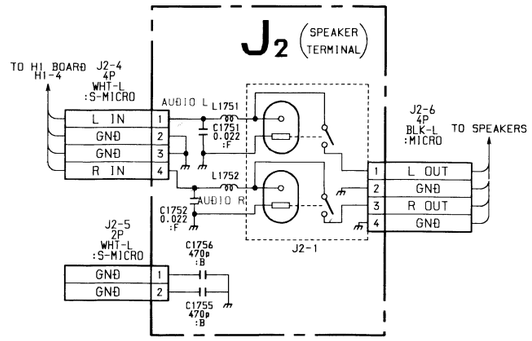


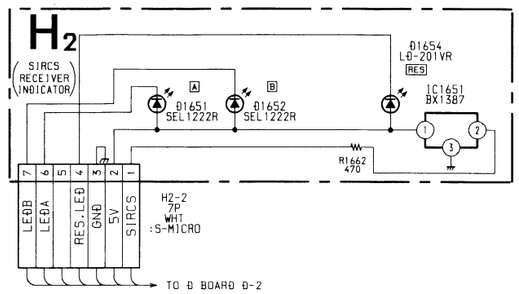
J1

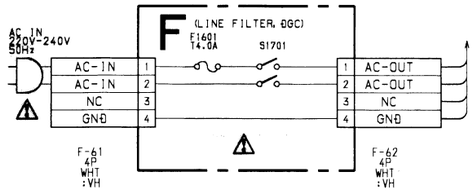
AUDIO CONTROL,
AV INPUT,
Y/C INPUT,
SCART VIDEO OUT,
EAST-WEST CORRECTION

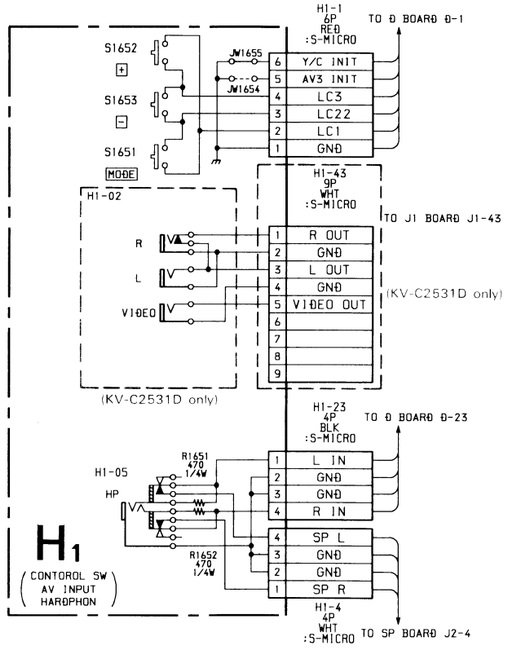


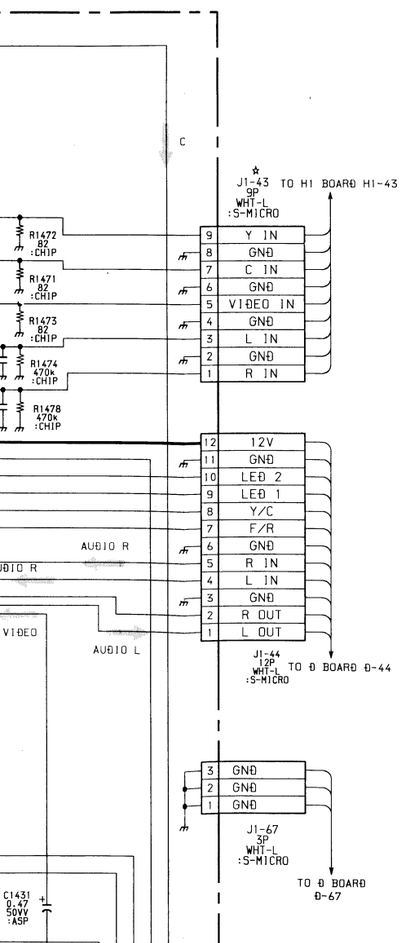


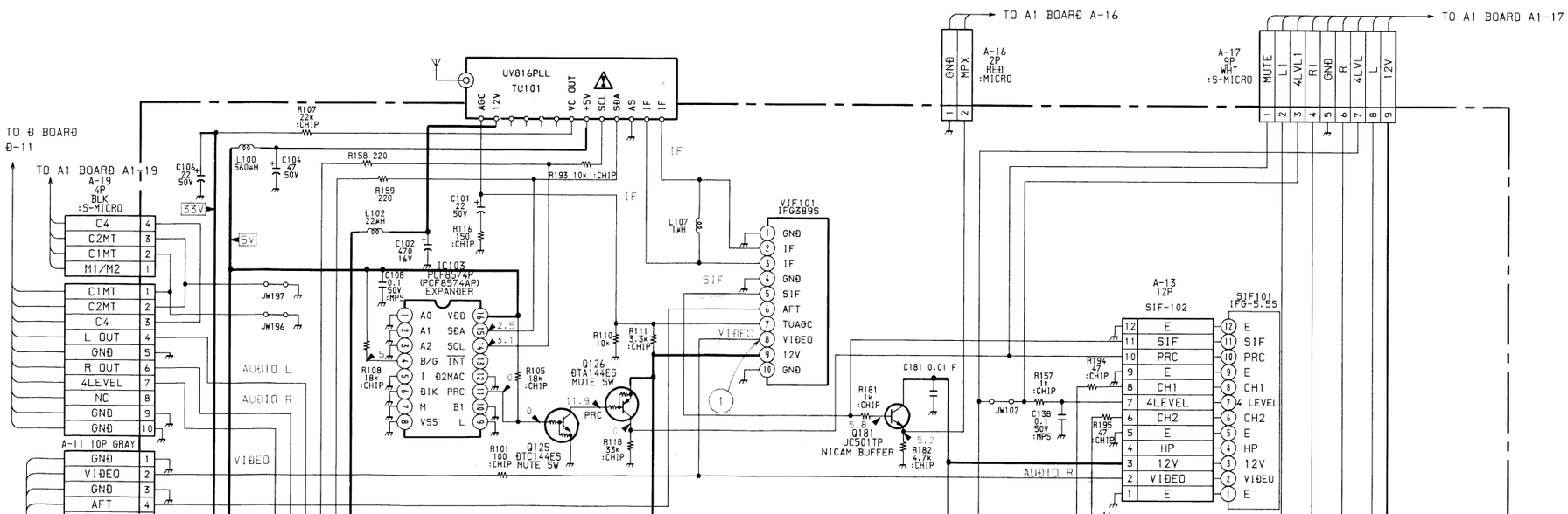

J2 (SPEAKER TERMINAL)
TO H1 BOARD J2-4
H1-4
4P
WHT-L
:S-MICRO
L IN
GND
GND
R IN
AUDIO L
L1751
C1751
0.022
:F
L1752
AUDIO R
C1752
0.022
:F
J2-6
4P
BLK-L
:MICRO
TO SPEAKERS
L OUT
GND
R OUT
GND
J2-1
J2-5
2P
WHT-L
:S-MICRO
GND
GND
C1756
470p
:B
C1755
470p
:B


H2
(SIRCS RECEIVER INDICATOR)
D1654
LG-201VR
RES
A
B
D1651
SEL1222R
D1652
SEL1222R
IC1651
BX1387
R1662
470
LEDB
LEDA
RES.LED
GND
5V
SIRCS
H2-2
7P
WHT
:S-MICRO
TO D BOARD D-2


AC IN
220V-240V
50Hz
F
(LINE FILTER, DGC)
F1601
T4.0A
S1701
AC-IN
AC-IN
NC
GND
AC-OUT
AC-OUT
NC
GND
F-61
4P
WHT
:VH
F-62
4P
WHT
:VH

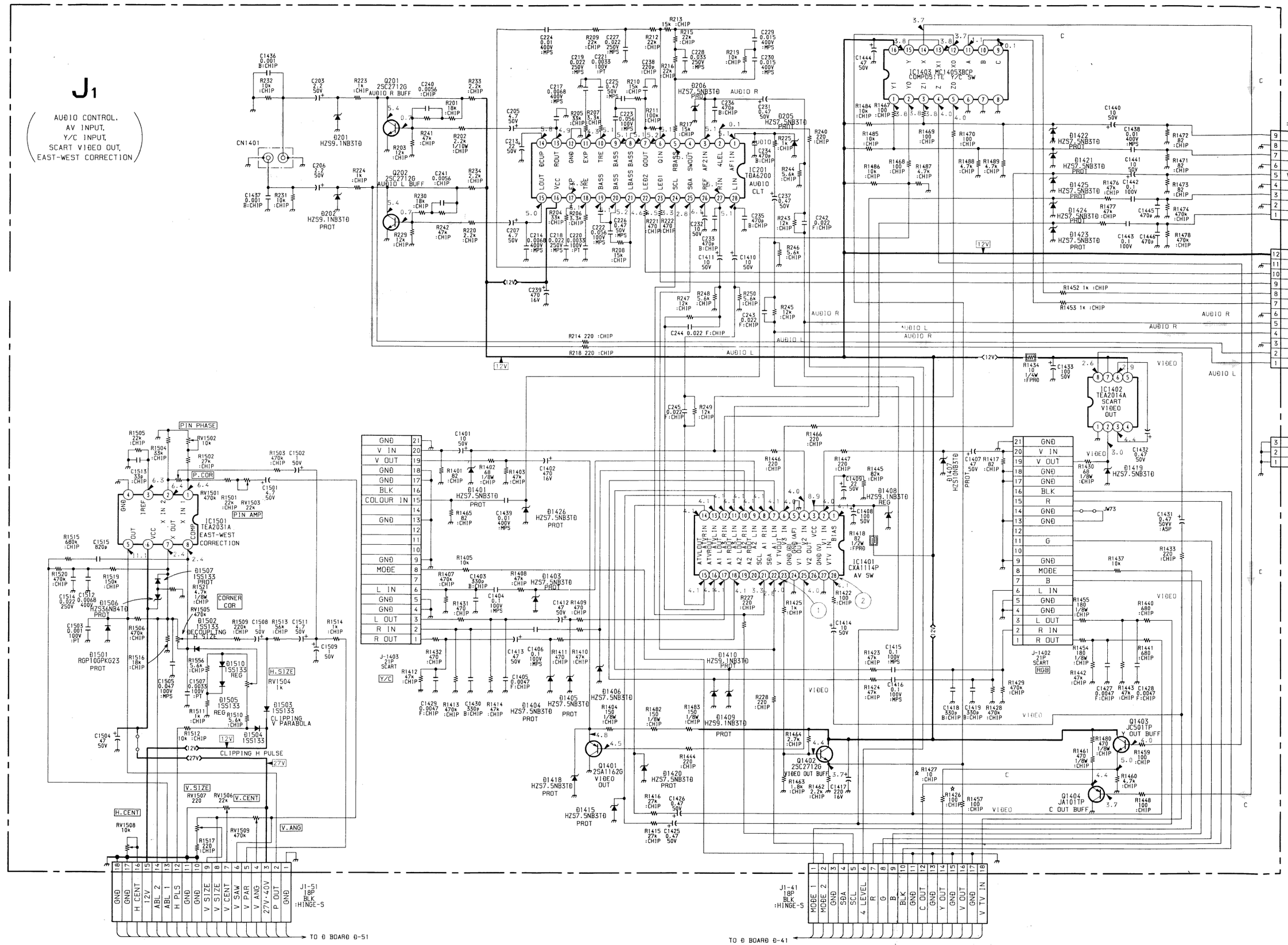

H1-1
6P
RED
:S-MICRO
TO D BOARD D-1
S1652
S1653
S1651
MODE
JW1655
JW1654
Y/C INIT
AV3 INIT
LC3
LC22
LC1
GND
H1-02
H1-43
9P
WHT
:S-MICRO
TO J1 BOARD J1-43
R
L
VIDEO
R OUT
GND
L OUT
GND
VIDEO OUT
(KV-C2531D only)
(KV-C2531D only)
H1-23
4P
BLK
:S-MICRO
TO D BOARD D-23
H1-05
HP
R1651
470
1/4W
R1652
470
1/4W
L IN
GND
GND
R IN
SP L
GND
GND
SP R
H1-4
4P
WHT
:S-MICRO
TO SP BOARD J2-4
H1
(CONTOROL SW
AV INPUT
HARDPHON

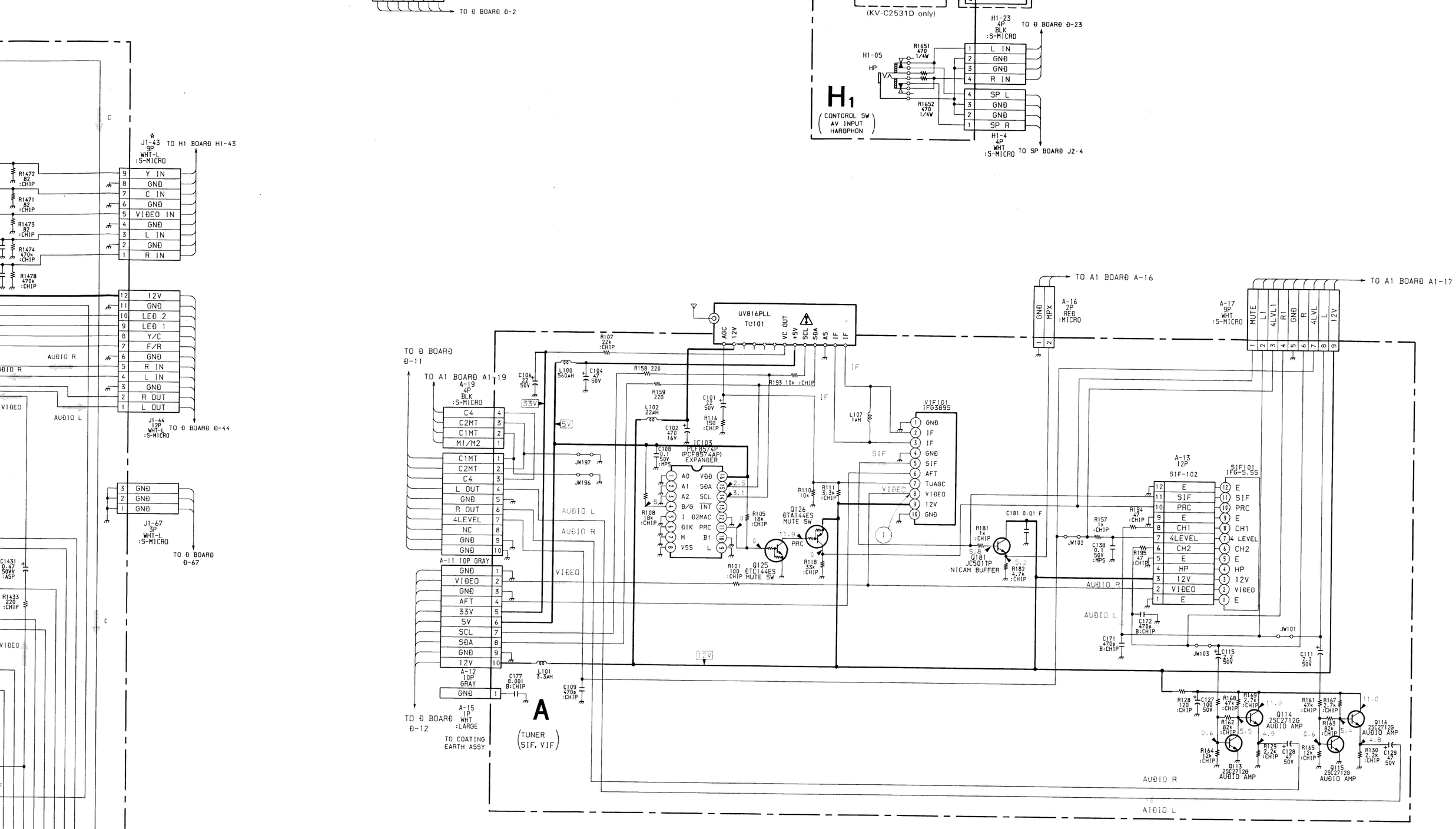

C
J1-43
9P
WHT-L
:S-MICRO
TO H1 BOARD H1-43
R1472
82
:CHIP
R1471
82
:CHIP
R1473
82
:CHIP
R1474
470k
:CHIP
R1478
470k
:CHIP
Y IN
GND
C IN
GND
VIDEO IN
GND
L IN
GND
R IN
12V
GND
LED 2
LED 1
Y/C
F/R
GND
R IN
L IN
GND
R OUT
L OUT
AUDIO R
AUDIO L
VIDEO
J1-44
12P
WHT-L
:S-MICRO
TO D BOARD D-44
GND
GND
GND
J1-67
3P
WHT-L
:S-MICRO
TO D BOARD D-67
C143J
0.47
50V
:ASP
R1433
220
C


UV816PLL
TU101
AGC
12V
VC OUT
+5V
SCL
SDA
AS
IF
IF
TO D BOARD D-11
TO A1 BOARD A1-19
A-19
4P
BLK
:S-MICRO
C4
C2MT
C1MT
M1/M2
C1MT
C2MT
C4
L OUT
GND
R OUT
4LEVEL
NC
GND
GND
A-11 10P GRAY
GND
VIDEO
GND
AFT
R107
22k
:CHIP
L100
560uH
C104
47
50V
33V
5V
R158 220
R159
220
L102
22uH
C106
22
50V
C102
470
16V
C101
22
50V
R116
150
:CHIP
R193 10k :CHIP
L107
1uH
IF
SIF
VIDEO
IC103
PLP8574P
(PCF8574AP)
EXPANDER
A0
A1
A2
B/G
I
DIK
M
VSS
VDD
SDA
SCL
INT
D2MAC
PRC
B1
L
C108
0.1
50V
:MPS
R108
18k
:CHIP
R105
18k
:CHIP
R101
100
:CHIP
Q125
DTC144ES
MUTE SW
Q126
DTA144ES
MUTE SW
PRC
R110
10k
R111
3.3k
:CHIP
R118
33k
:CHIP
VIF101
IFG5895
GND
IF
IF
GND
SIF
AFT
TUAGC
VIDEO
12V
GND
JW197
JW196
AUDIO L
AUDIO R
VIDEO
C181 0.01 F
R181
1k
:CHIP
Q181
JC501TP
NICAM BUFFER
R182
4.7k
:CHIP
JW102
R157
1k
:CHIP
C138
0.1
50V
:MPS
R194
47
:CHIP
R195
47
:CHIP
A-13
12P
SIF-102
SIF101
IFG-5.55
E
SIF
PRC
E
CH1
4LEVEL
CH2
E
HP
12V
VIDEO
E
TO A1 BOARD A-16
GND
MPX
A-16
2P
RED
:MICRO
TO A1 BOARD A1-17
A-17
9P
WHT
:S-MICRO
MUTE
L1
4LVL1
R1
GND
R
4LVL
L
12V

J1

AUDIO CONTROL,
AV INPUT,
Y/C INPUT,
SCART VIDEO OUT,
EAST-WEST CORRECTION





• WAVEFORMS J1 BOARD

①	②
2.0Vp-p (H)	2.0Vp-p (H)

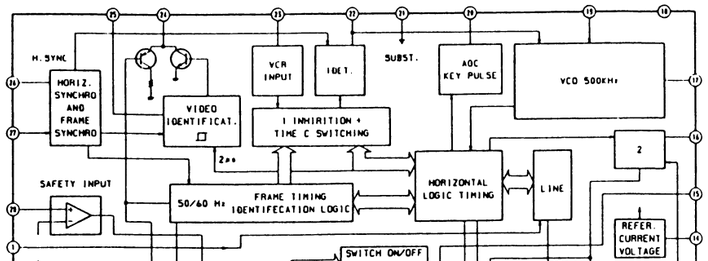
• WAVEFORMS A BOARD

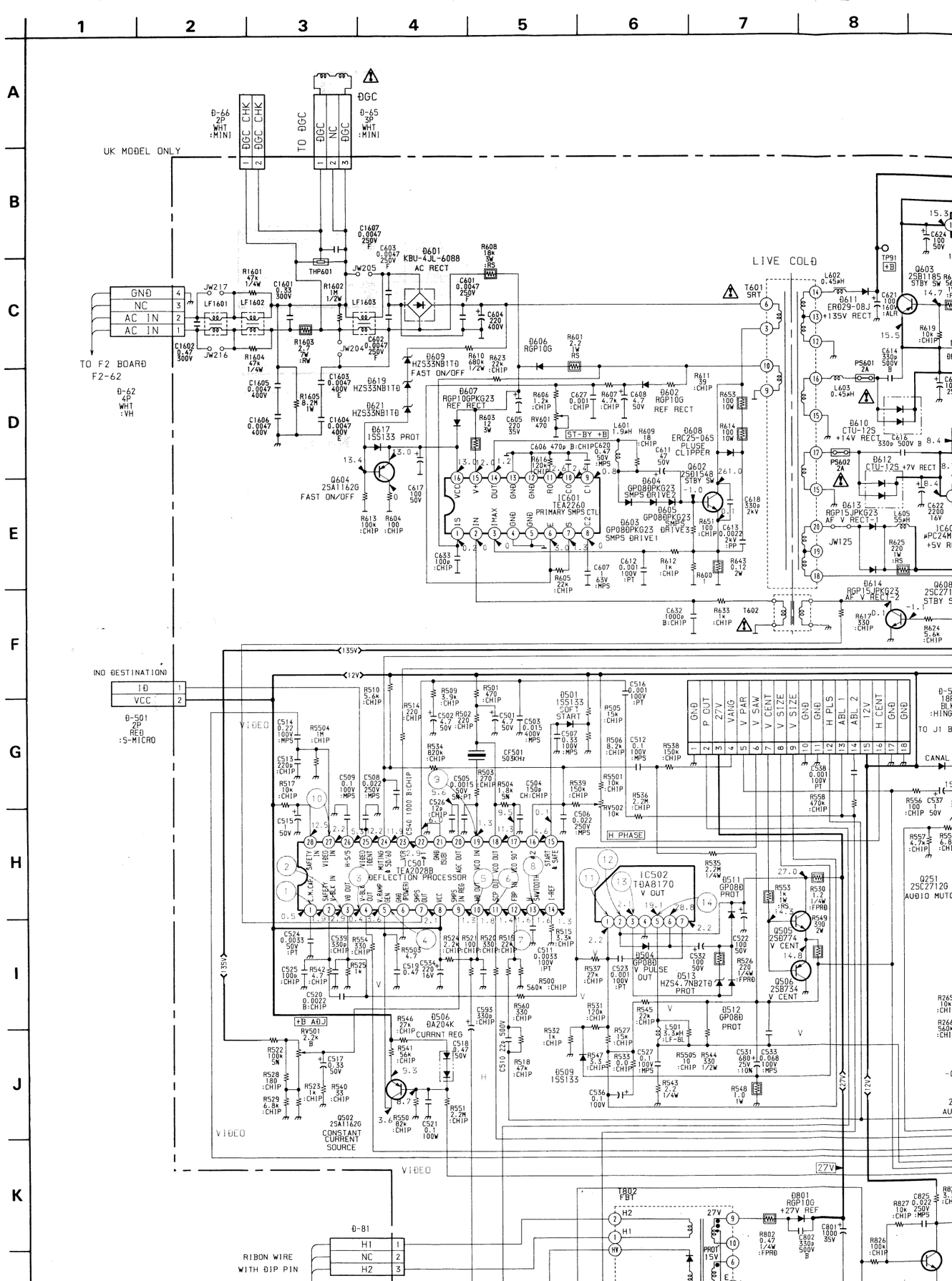
①
1 Vp-p (H)

• WAVEFORMS D BOARD

① 1.2Vp-p (H)	② 3.2 Vp-p(V)	③ 5.0 Vp-p (V)
④ 3.3Vp-p (V)	⑤ 3.4Vp-p (H)	⑥ 10.0 Vp-p (H)
⑦ 12.0Vp-p (H)	⑧ 3.0Vp-p (H)	⑨ 0.1Vp-p(503KHz)
⑩ 1.0Vp-p (H)	⑪ 0.56Vp-p (V)	⑫ 2.0Vp-p (V)
⑬ 29 Vp-p (V)	⑭ 48 Vp-p (V)	⑮ 2.8Vp-p (H)
⑯ 230Vp-p (H)	⑰ 11.5Vp-p (H)	⑱ 800Vp-p (H)
⑲ 165Vp-p (H)	⑳ 6.8 Vp-p(V)	㉑ 48 Vp-p (V)
㉒ 1.2Vp-p (H)	㉓ 9.0Vp-p (H)	㉔ 3.6Vp-p(12MHz)
㉕ 4.0Vp-p (H)	㉖ 5.6Vp-p (H)	㉗ 4.8Vp-p (V)

D BOARD IC501 TEA2020B





7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

TO A1 BOARD A1-18

TO Y BOARD Y-3

TO J1 BOARD J1-44

TO H2 BOARD H2-2

D (TUNING CONTROL / POWER CONTROL / AUDIO OUT H/V OUT)

LIVE COLD

IC608 TYA7812CT +12V REG

IC251 TDA2050 AUDIO OUT (L)

IC261 TDA2050 AUDIO OUT (R)

IC001 SDA2083 TUNING CTL

IC002 CXD1050A-09P ON SCREEN DISPLAY

IC003 BA4558 AFT COMPARATORE

IC005 SDA2546 MY MEMORY

Q001 DTC144EK 50/60Hz SW

Q002 DTA144EK REG SW

Q003 2SA1162G SYNC SEPARATOR

Q004 2SA1162G SYNC SEPARATOR

Q005 DTC144EK Y/C SW

Q006 DTC144EK FRONT/REAR SW

Q007 2SC2712G MODE 2 SWITCH

Q008 2SC2712G MODE 1 SWITCH

Q009 2SC2712G

Q271 2SC2712G VOLTAGE DETECT

Q598 2SA1162G VIDEO AMP

D-1 6P REC :S-MICRO

6 Y/C INIT
5 AV3 INIT
4 LC3
3 LC2
2 LC1
1 GND

TO H1 BOARD H1-1

D-45 6P BLK :S-MICRO

GND R OUT L OUT GND R IN L IN

TO J1 BOARD J1-44

D-11 10P GRY :BTOB-P

1 C1MT
2 C2MT
3 C4
4 L IN
5 GND
6 R IN
7 4-LEVEL
8 NC
9 GND
10 GND

TO A BOARD A-11

D-31 10P GRY :BTOB-P

10 V IN
9 GND
8 Y OUT
7 GND
6 V OUT
5 YC-SWITCH
4 C OUT
3 GND
2 SDA
1 SCL

TO B BOARD B-31

D-21 10P GRY :BTOB-P

10 GND
9 14V
8 GND
7 GND
6 7V
5 ST.BY
4 GND
3 VIDEO
2 S-TV
1 GND

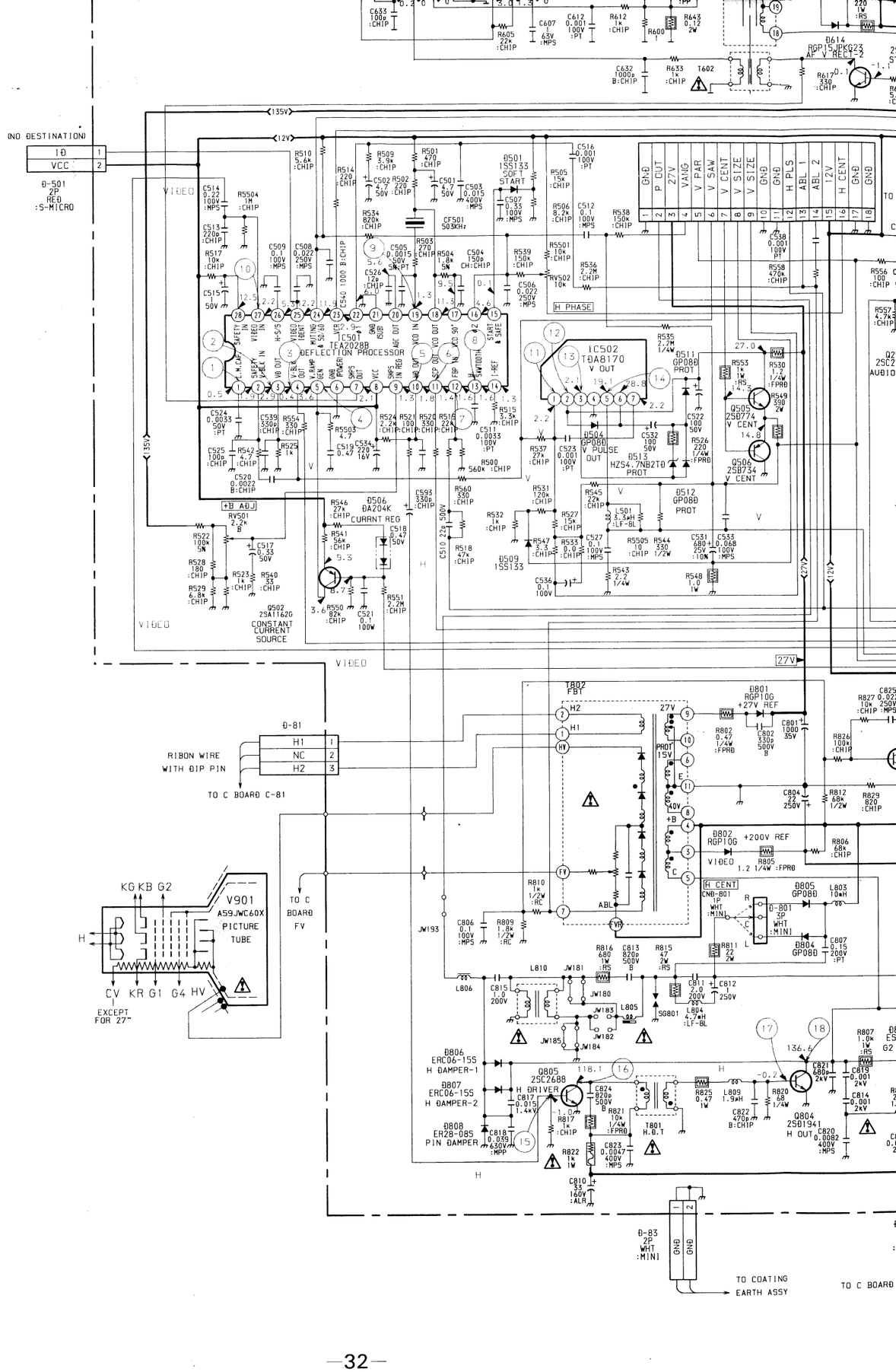
TO V BOARD CNV-41

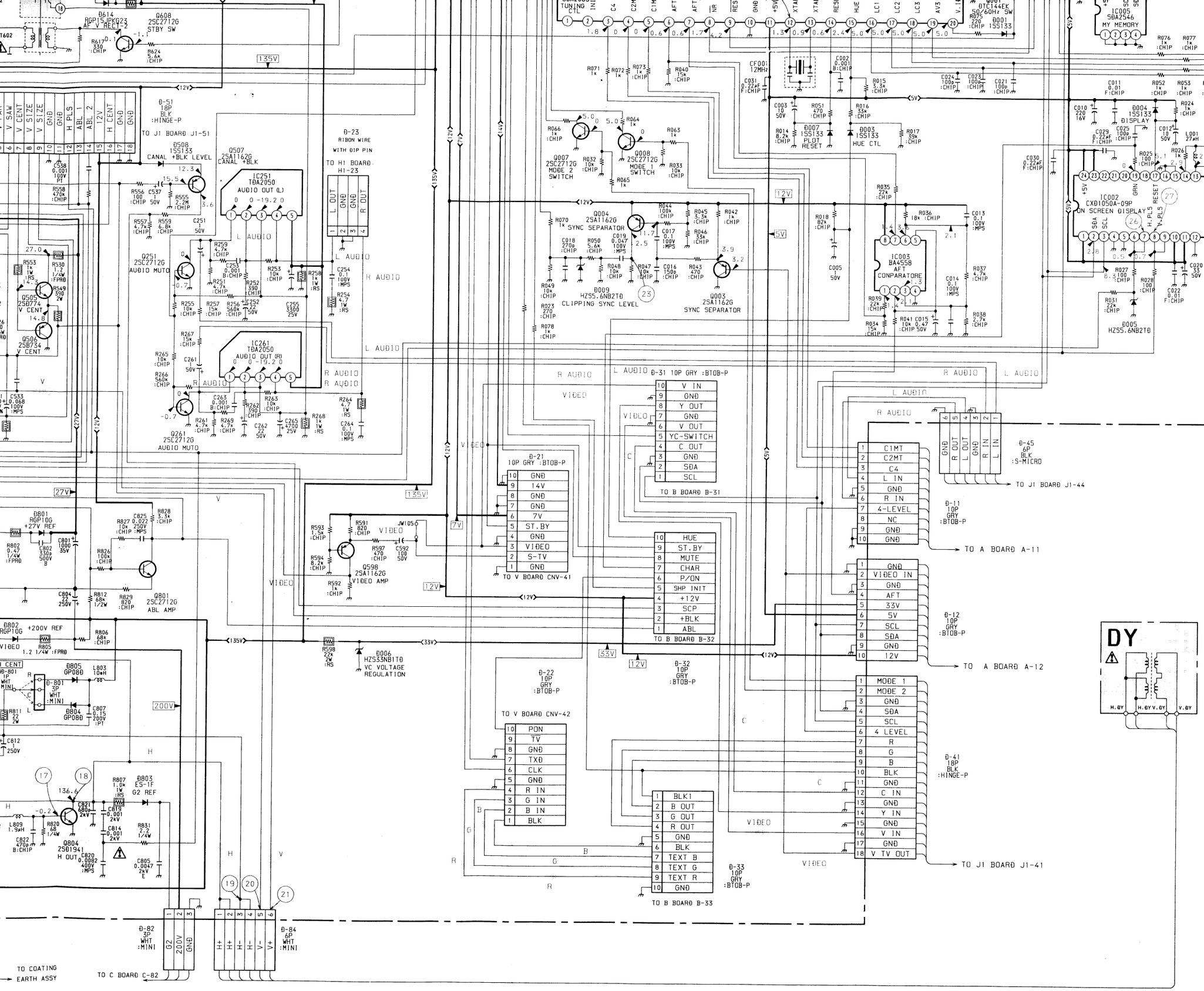
10 HUE
9 ST.BY
8 MUTE
7 CHAR
6 P/ON
5 SHP INIT

1.0Vp-p (H)	0.56Vp-p (V)	2.0Vp-p (V)
⑬ 29 Vp-p (V)	⑭ 48 Vp-p (V)	⑮ 2.8Vp-p (H)
⑯ 230Vp-p (H)	⑰ 11.5Vp-p (H)	⑱ 800Vp-p (H)
⑲ 165Vp-p (H)	⑳ 6.8 Vp-p(V)	㉑ 48 Vp-p (V)
㉒ 1.2Vp-p (H)	㉓ 9.0Vp-p (H)	㉔ 3.6Vp-p(12MHz)
㉕ 4.0Vp-p (H)	㉖ 5.6Vp-p (H)	㉗ 4.8Vp-p (V)

D BOARD IC501 TEA2020B

D BOARD IC601 TEA2260



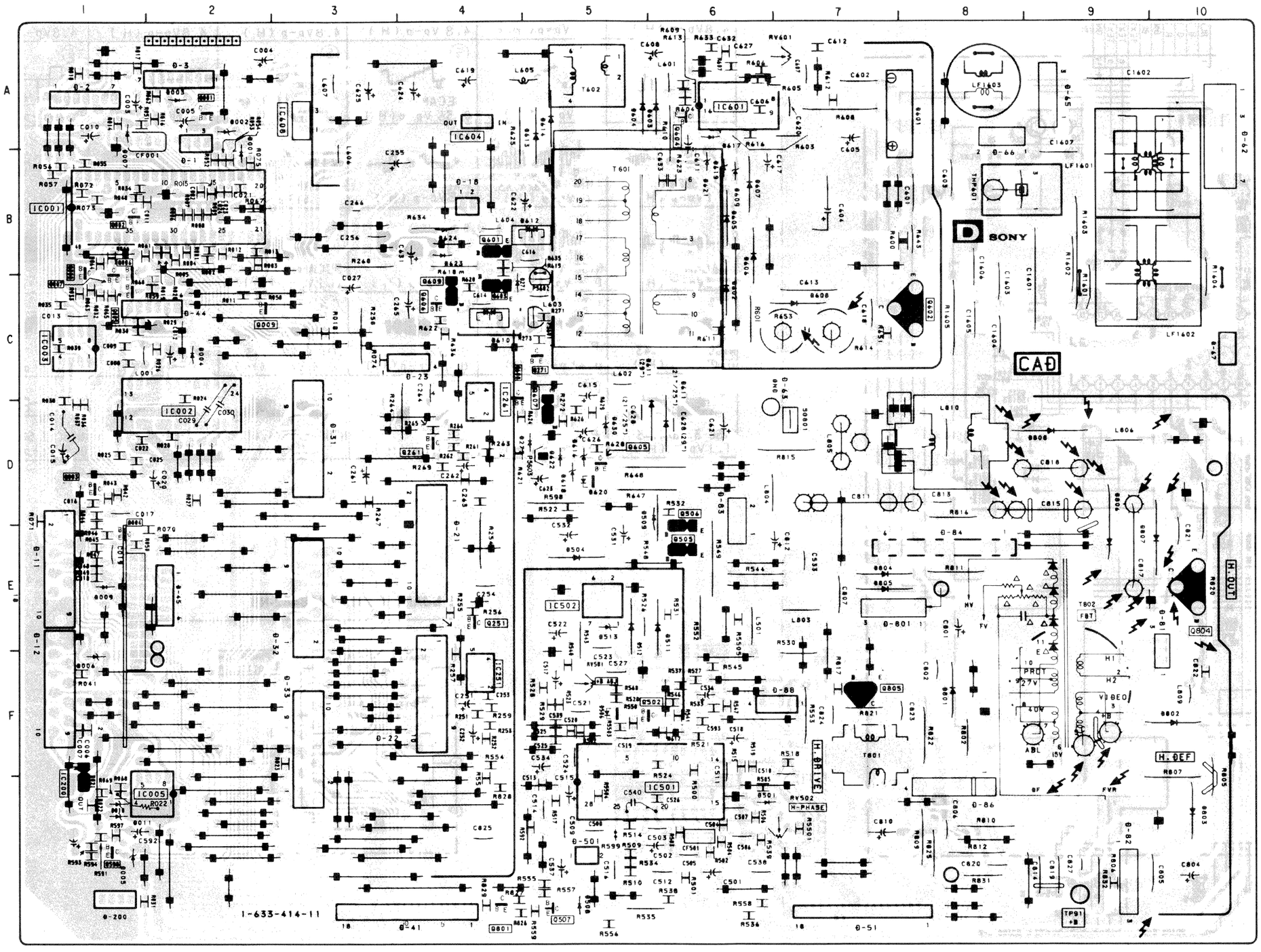

Q614 RGP15JPKG23 AF V REC 2
Q608 2SC2712G STBY SW
R617 330 :CHIP
R624 5.6k :CHIP
135V
12V
CN-51 18P BLK :HINGE-P
TO J1 BOARD J1-51
V SAW
V CENT
V SIZE
H PLS
ABL 1
ABL 2
H CENT
GND
Q508 1SS133 CANAL +BLK LEVEL
Q507 2SA1162G CANAL +BLK
IC251 TDA2050 AUDIO OUT (L)
C538 0.001 100V PT
R558 470k :CHIP
R556 100 :CHIP 50V
C537 1 50V
R555 2.2M :CHIP
R557 4.7k :CHIP
R559 6.8k :CHIP
C251 1 50V
L AUDIO
Q251 2SC2712G AUDIO MUTE
R259 4.7k :CHIP
C253 0.001 B:CHIP
R253 10k :CHIP
R251 4.7k :CHIP
R252 390 :CHIP
R258 1k 1W :RS
C254 0.1 100V :MPS
R254 4.7 1W :RS
R553 1k 1W :RS
R530 1.2 1/4W :FPRD
R549 390 2W
Q505 2SB734 V CENT
Q506 2SB734 V CENT
R255 10k :CHIP
R257 15k :CHIP
R256 560k :CHIP
C252 22 50V
C255 3300 25V
C533 0.068 100V :MPS
R267 15k :CHIP
IC261 TDA2050 AUDIO OUT (R)
R265 10k :CHIP
C261 1 50V
R266 560k :CHIP
R AUDIO
C263 0.001 B:CHIP
R263 10k :CHIP
R262 390 :CHIP
R268 1k 1W :RS
R264 4.7 1W :RS
C264 0.1 100V :MPS
R261 4.7k :CHIP
R269 4.7k :CHIP
C262 22 50V
C265 4700 25V
Q261 2SC2712G AUDIO MUTE
27V
Q801 RGP10G +27V REF
R802 0.47 1/4W :FPRD
C802 3300 500V B
C801 1000 35V
R827 10k 250V :CHIP :MPS
C825 0.022
R828 3.3k :CHIP
R826 100k :CHIP
R812 68k 1/2W
R829 820 :CHIP
C804 22 250V
Q801 2SC2712G ABL AMP
Q802 RGP10G +200V REF
R806 68k :CHIP
R805 1.2 1/4W :FPRD
200V
Q805 GP08D
L803 10mH
Q804 GP08D
C807 0.15 200V :PT
C812 250V
H
Q803 ES-1F G2 REF
R807 1.0k 1W :RS
C821 680p 2kV
C819 0.001 2kV
C814 0.001 2kV
R831 2.2 1/4W
L809 1.9mH
R820 68 1/4W
C822 470p B:CHIP
Q804 2SD1941 H OUT
C820 0.0082 400V :MPS
C805 0.0047 2kV E
CN-82 3P WHT :MINI
G2
200V
GND
CN-84 6P WHT :MINI
H+
H+
H-
H-
V-
V+
TO COATING EARTH ASSY
TO C BOARD C-82
CN-23 RIBON WIRE WITH DIP PIN
TO H1 BOARD H1-23
L OUT
GND
GND
R OUT
R AUDIO
L AUDIO
VIDEO
Q004 2SA1162G SYNC SEPARATOR
Q007 2SC2712G MODE 2 SWITCH
Q008 2SC2712G MODE 1 SWITCH
D009 HZS5.6NB2TD CLIPPING SYNC LEVEL
Q003 2SA1162G SYNC SEPARATOR
D007 1SS133 PLOT RESET
D003 1SS133 HUE CTL
IC003 BA4558 CONPARATORE
D005 HZS5.6NB2TD
IC005 SDA2546 MY MEMORY
IC002 CXD1050A-09P ON SCREEN DISPLAY
D004 1SS133 DISPLAY
CFO01 12MHz
IC001 DTC144EK 50/60Hz SW
D001 1SS133
CN-1 6P RED :S-MICRO
Y/C INIT
AV3 INIT
LC3
LC2
LC1
GND
TO H1 BOARD H1-1
CN-31 10P GRY :BTOB-P
V IN
GND
Y OUT
GND
V OUT
YC-SWITCH
C OUT
GND
SDA
SCL
TO B BOARD B-31
CN-21 10P GRY :BTOB-P
GND
14V
GND
GND
7V
ST.BY
GND
VIDEO
S-TV
GND
TO V BOARD CNV-41
Q598 2SA1162G VIDEO AMP
JW105
CN-32 10P GRY :BTOB-P
HUE
ST.BY
MUTE
CHAR
P/ON
SHP INIT
+12V
SCP
+BLK
ABL
TO B BOARD B-32
D006 HZS33NB1TD VC VOLTAGE REGULATION
33V
CN-22 10P GRY :BTOB-P
TO V BOARD CNV-42
PON
TV
GND
TXD
CLK
GND
R IN
G IN
B IN
BLK
CN-33 10P GRY :BTOB-P
BLK1
B OUT
G OUT
R OUT
GND
BLK
TEXT B
TEXT G
TEXT R
GND
TO B BOARD B-33
CN-45 6P BLK :S-MICRO
GND
R OUT
L OUT
GND
R IN
L IN
TO J1 BOARD J1-44
CN-11 10P GRY :BTOB-P
C1MT
C2MT
C4
L IN
GND
R IN
4-LEVEL
NC
GND
GND
TO A BOARD A-11
CN-12 10P GRY :BTOB-P
GND
VIDEO IN
GND
AFT
33V
5V
SCL
SDA
GND
12V
TO A BOARD A-12
CN-41 18P BLK :HINGE-P
MODE 1
MODE 2
GND
SDA
SCL
4 LEVEL
R
G
B
BLK
GND
C IN
GND
Y IN
GND
V IN
GND
V TV OUT
TO J1 BOARD J1-41
DY
H.BY
H.BY V.BY
V.BY

KV-C2521D/C2531D
RM-689

[TUNING CONTROL, POWER CONTROL, AUDIO OUT, H/V OUT] D

D

—D Board—



IC

IC001	B-2
IC002	D-2
IC003	C-1
IC005	G-2
IC251	F-4
IC261	C-4
IC501	G-6
IC502	E-5
IC601	A-6
IC604	A-4
IC608	A-3

TRANSISTOR

Q001	A-2
Q002	B-1
Q003	D-1
Q004	D-1
Q005	C-1
Q006	B-1
Q007	C-1
Q008	C-1
Q009	C-2
Q251	E-4
Q261	D-4
Q271	C-5
Q502	F-6
Q505	E-6
Q506	E-6
Q507	G-5
Q598	G-1
Q601	B-4
Q602	C-8
Q603	C-4
Q604	A-6
Q605	D-5
Q606	C-4
Q607	D-5
Q608	C-4
Q609	C-4
Q801	G-4
Q804	E-10
Q805	F-7

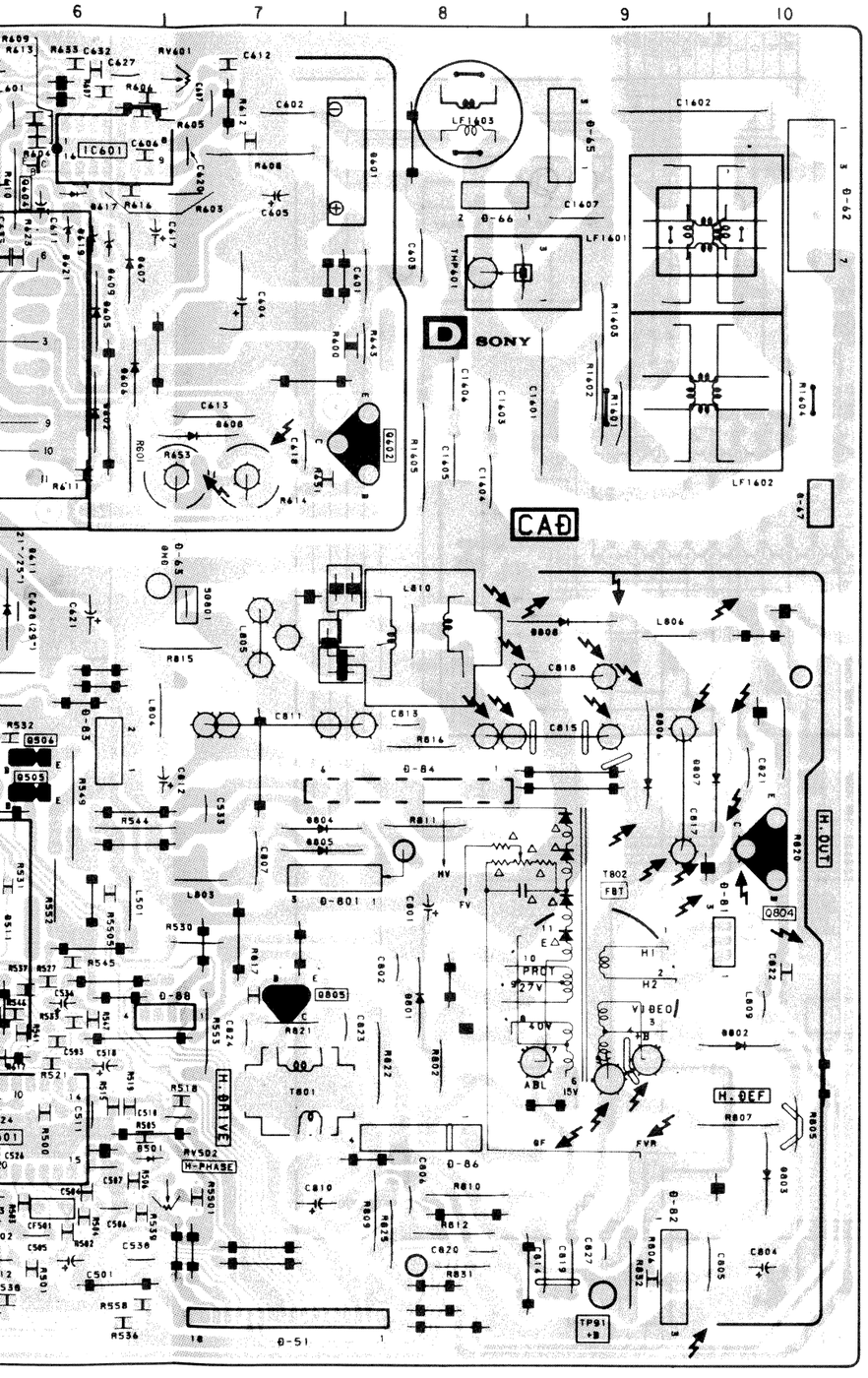
DIODE

D001	B-2
D002	A-2
D003	A-2
D004	C-2
D005	G-1
D006	F-1
D007	A-1
D009	E-1
D010	G-1
D011	G-1
D271	C-4
D272	D-5
D501	G-6
D504	E-5
D506	F-5
D508	G-5
D509	D-6
D511	E-6
D512	E-5
D513	E-5
D601	A-8
D602	C-6
D603	A-6
D604	A-5
D605	B-6
D606	B-6
D607	B-6
D608	C-7
D609	B-6
D610	C-4
D611	D-6
D612	B-5
D613	A-5
D614	A-5
D616	D-5
D617	A-6
D618	D-5
D619	B-6
D620	D-5
D621	B-6
D622	D-5
D623	B-4
D624	B-4
D630	D-5
D801	F-8
D802	F-10
D803	G-10
D804	E-7
D805	E-7
D806	E-9
D807	E-10
D808	D-9

VARIABLE RESISTOR

RV501	F-5
RV502	G-7
RV601	A-7

ROL, D D



IC

IC001	B-2
IC002	D-2
IC003	C-1
IC005	G-2
IC251	F-4
IC261	C-4
IC501	G-6
IC502	E-5
IC601	A-6
IC604	A-4
IC608	A-3

TRANSISTOR

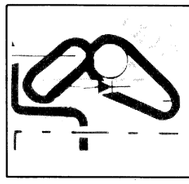
Q001	A-2
Q002	B-1
Q003	D-1
Q004	D-1
Q005	C-1
Q006	B-1
Q007	C-1
Q008	C-1
Q009	C-2
Q251	E-4
Q261	D-4
Q271	C-5
Q502	F-6
Q505	E-6
Q506	E-6
Q507	G-5
Q598	G-1
Q601	B-4
Q602	C-8
Q603	C-4
Q604	A-6
Q605	D-5
Q606	C-4
Q607	D-5
Q608	C-4
Q609	C-4
Q801	G-4
Q804	E-10
Q805	F-7

DIODE

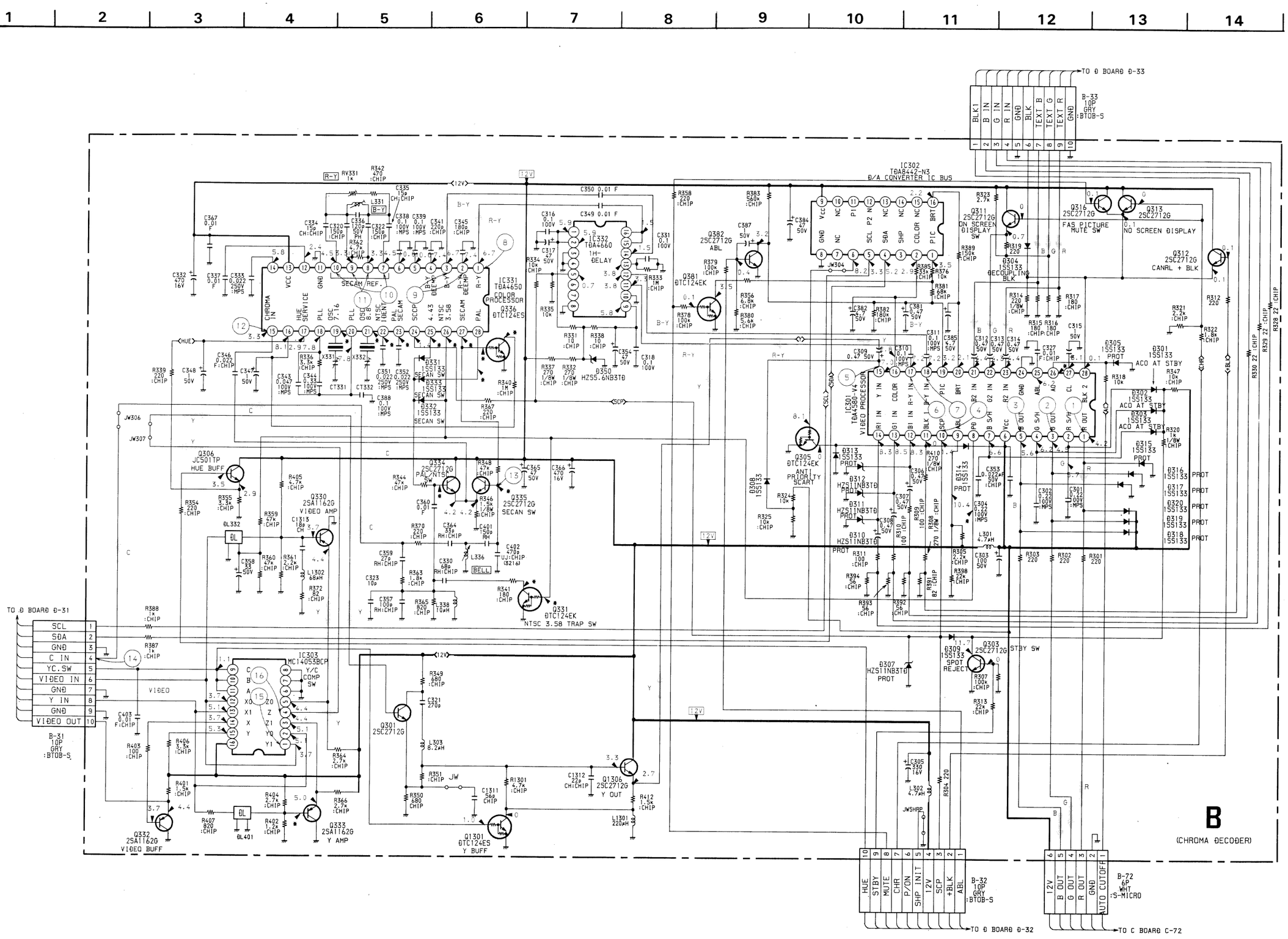
D001	B-2
D002	A-2
D003	A-2
D004	C-2
D005	G-1
D006	F-1
D007	A-1
D009	E-1
D010	G-1
D011	G-1
D271	C-4
D272	D-5
D501	G-6
D504	E-5
D506	F-5
D508	G-5
D509	D-6
D511	E-6
D512	E-5
D513	E-5
D601	A-8
D602	C-6
D603	A-6
D604	A-5
D605	B-6
D606	B-6
D607	B-6
D608	C-7
D609	B-6
D610	C-4
D611	D-6
D612	B-5
D613	A-5
D614	A-5
D616	D-5
D617	A-6
D618	D-5
D619	B-6
D620	D-5
D621	B-6
D622	D-5
D623	B-4
D624	B-4
D630	D-5
D801	F-8
D802	F-10
D803	G-10
D804	E-7
D805	E-7
D806	E-9
D807	E-10
D808	D-9

VARIABLE RESISTOR

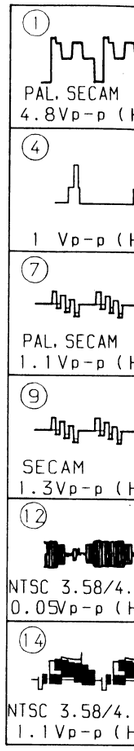
RV501	F-5
RV502	G-7
RV601	A-7



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

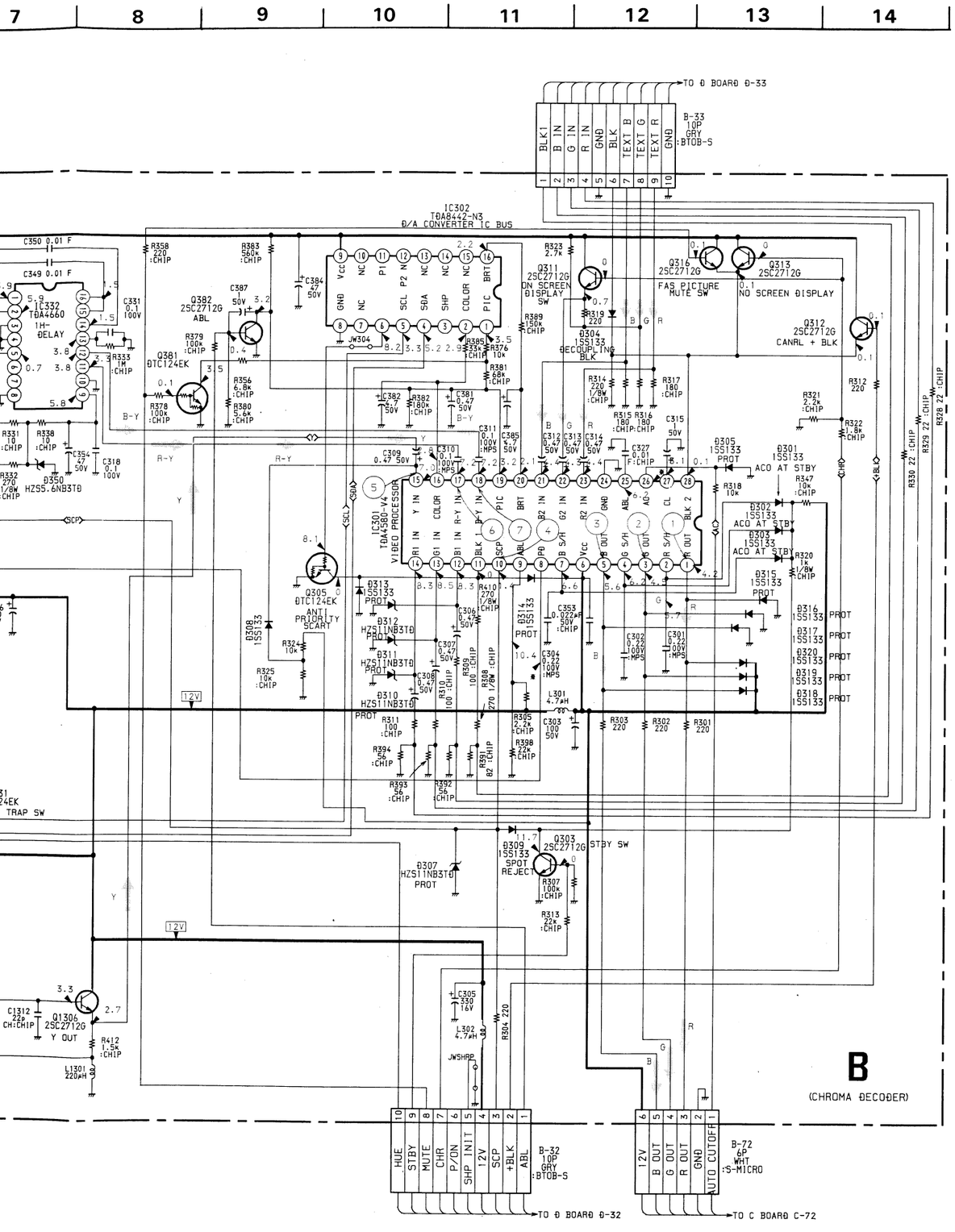


• WAVEFORM



		PAL	SECAM	NTSC3.58	N
IC301	(8)	0.1	0.1	5.8	
	(24)	6.7	6.8	5.1	
IC331	(19)	3.1	3.6	3.1	
	(21)	3.0	3.5	2.9	
	(22)	5.6	5.6	7.1	
	(23)	7.5	7.0	5.6	
	(25)	0.1	0.1	0.1	
	(26)	0.1	0.1	5.8	
	(27)	0.1	5.8	0.1	
	(28)	5.9	0.1	0.1	
Q331 (B)		0.1	0.1	5.8	
	(C)	1.5	1.9	0	
Q333 (B)		3.4	4.4	4.4	
Q334 (B)		4.9	0.1	4.8	
Q335 (B)		0.1	4.8	0.1	
Q336 (B)		0.1	5.8	0.1	
	(C)	7.3	0	7.3	

KV-C2521D/C2531D
RM-689

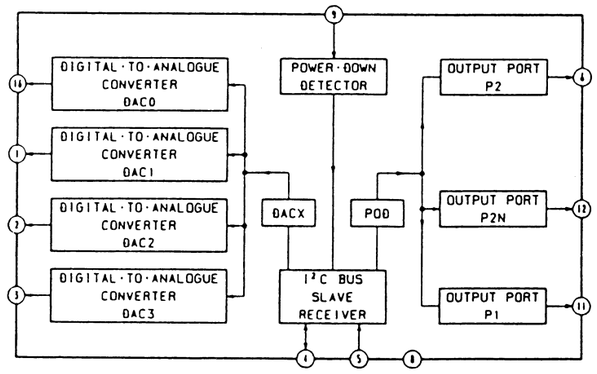


• WAVEFORMS B BOARD

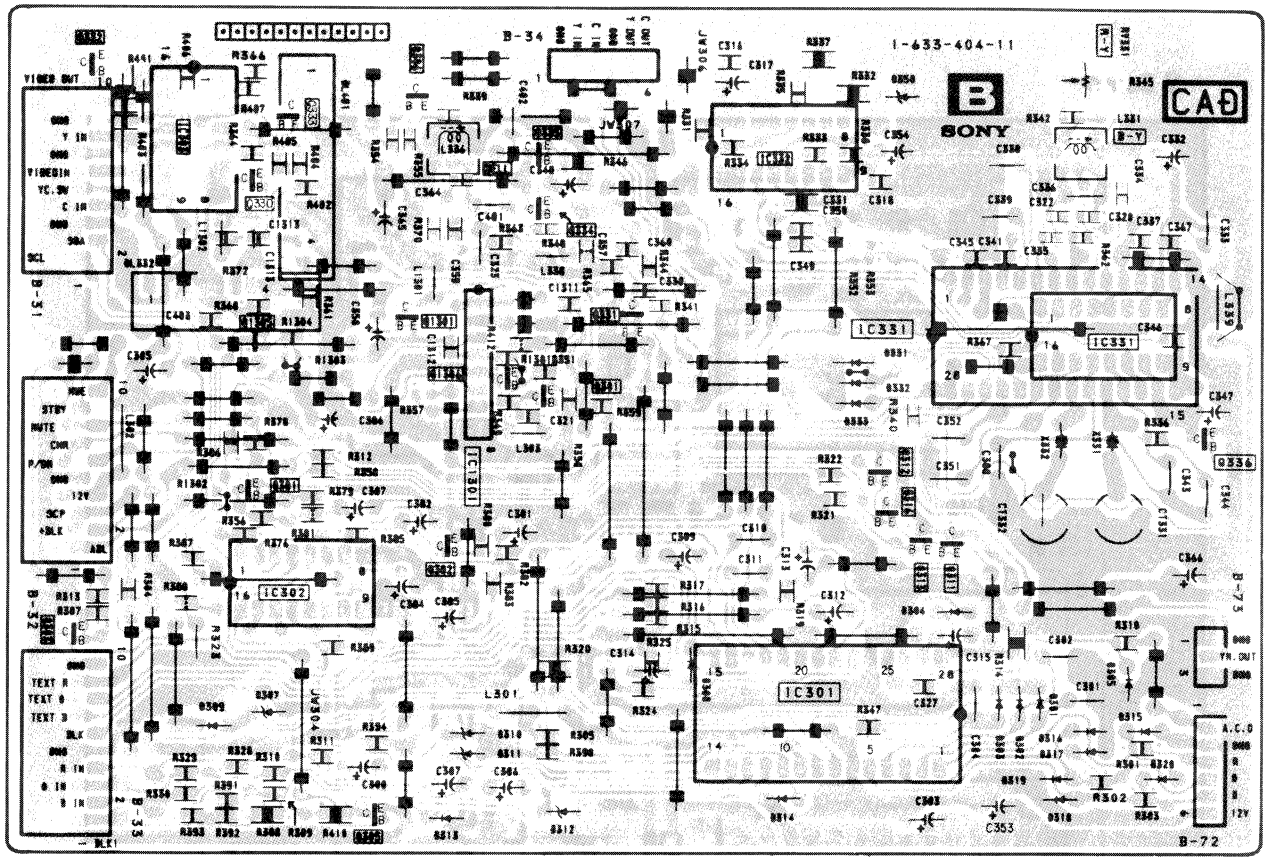
① PAL, SECAM 4.8Vp-p (H)	① NTSC 3.58/4.43 4.8 Vp-p(H)	② PAL, SECAM 4.8 Vp-p (H)	② NTSC 3.58/4.43 4.8Vp-p (H)	③ PAL, SECAM 4.8Vp-p (H)	③ NTSC 3.58/4.43 4.8Vp-p (H)
④ 1 Vp-p (H)	⑤ PAL 0.4Vp-p (H)	⑤ SECAM 0.36 Vp-p(H)	⑤ NTSC 3.58/4.43 0.46Vp-p (H)	⑥ PAL, SECAM 0.9Vp-p (H)	⑥ NTSC 3.58/4.43 0.7Vp-p (H)
⑦ PAL, SECAM 1.1Vp-p (H)	⑦ NTSC 3.58/4.43 1 Vp-p (H)	⑧ PAL 0.5Vp-p (H)	⑧ SECAM 1.1 Vp-p (H)	⑨ NTSC 3.58/4.43 0.4Vp-p (H)	⑨ PAL 0.6Vp-p (H)
⑨ SECAM 1.3Vp-p (H)	⑨ NTSC 3.58/4.43 0.6 Vp-p(H)	⑩ SECAM 1.4 Vp-p (H)	⑪ SECAM 0.2Vp-p (H)	⑫ PAL 0.2Vp-p (H)	⑫ SECAM 0.12Vp-p (H)
⑫ NTSC 3.58/4.43 0.05Vp-p (H)	⑬ PAL 0.4Vp-p (H)	⑬ SECAM 0.1 Vp-p(H)	⑬ NTSC 3.58/4.43 0.4 Vp-p (H)	⑭ PAL 1 Vp-p (H)	⑭ SECAM 1 Vp-p (H)
⑭ NTSC 3.58/4.43 1.1Vp-p (H)	⑮ PAL 1 Vp-p (H)	⑮ SECAM 0.9Vp-p (H)	⑮ NTSC 3.58/4.43 1 Vp-p (H)	⑯ PAL, SECAM 0.4Vp-p (H)	⑯ NTSC 3.58/4.43 0.54Vp-p (H)

		PAL	SECAM	NTSC3.58	NTSC4.43
IC301	⑧	0.1	0.1	5.8	0.1
	⑭	6.7	6.8	5.1	5.1
IC331	⑮	3.1	3.6	3.1	2.8
	㉑	3.0	3.5	2.9	2.7
	㉒	5.6	5.6	7.1	7.2
	㉓	7.5	7.0	5.6	5.6
	㉕	0.1	0.1	0.1	5.8
	㉔	0.1	0.1	5.8	0.1
	㉗	0.1	5.8	0.1	0.1
	㉘	5.9	0.1	0.1	0.1
Q331	(B)	0.1	0.1	5.8	0.1
	(C)	1.5	1.9	0	0.8
Q333	(B)	3.4	4.4	4.4	4.4
Q334	(B)	4.9	0.1	4.8	4.8
Q335	(B)	0.1	4.8	0.1	0.1
Q336	(B)	0.1	5.8	0.1	0.1
	(C)	7.3	0	7.3	7.3

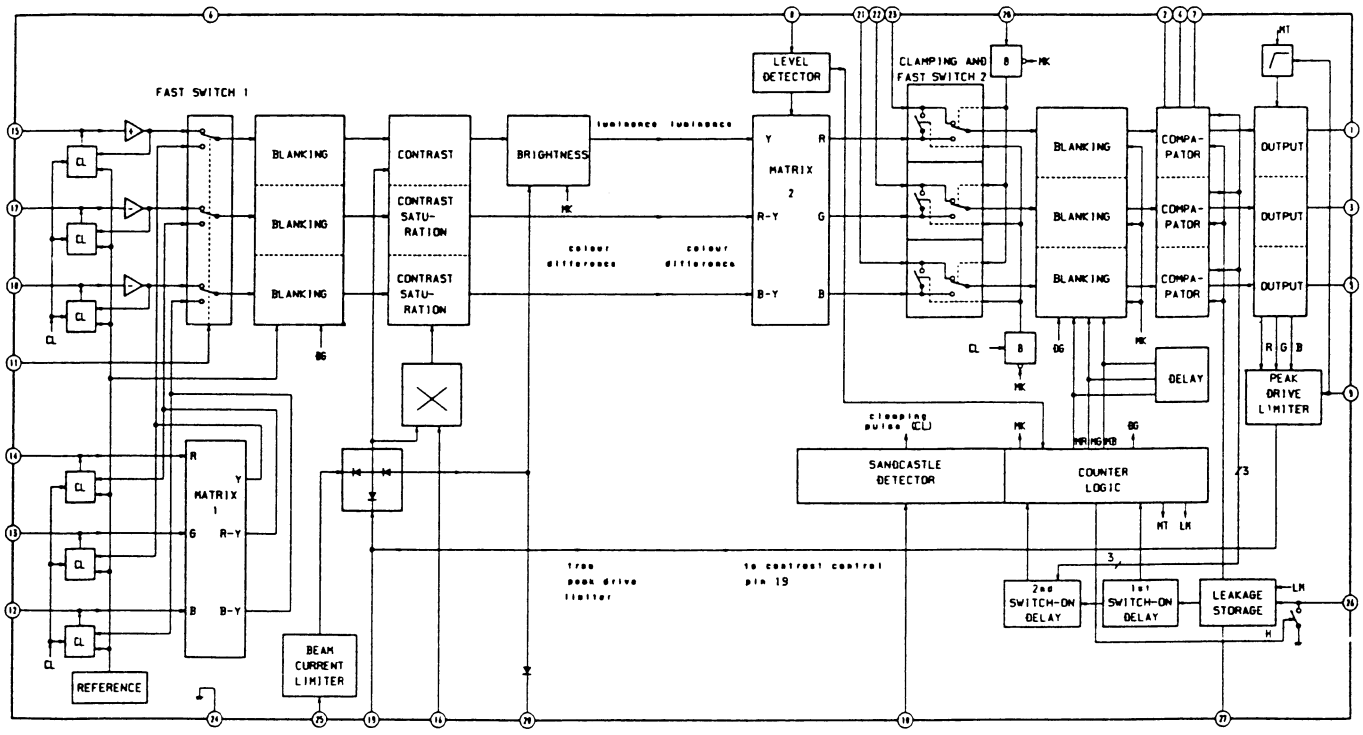
B BOARD IC302 TDA8442-N3



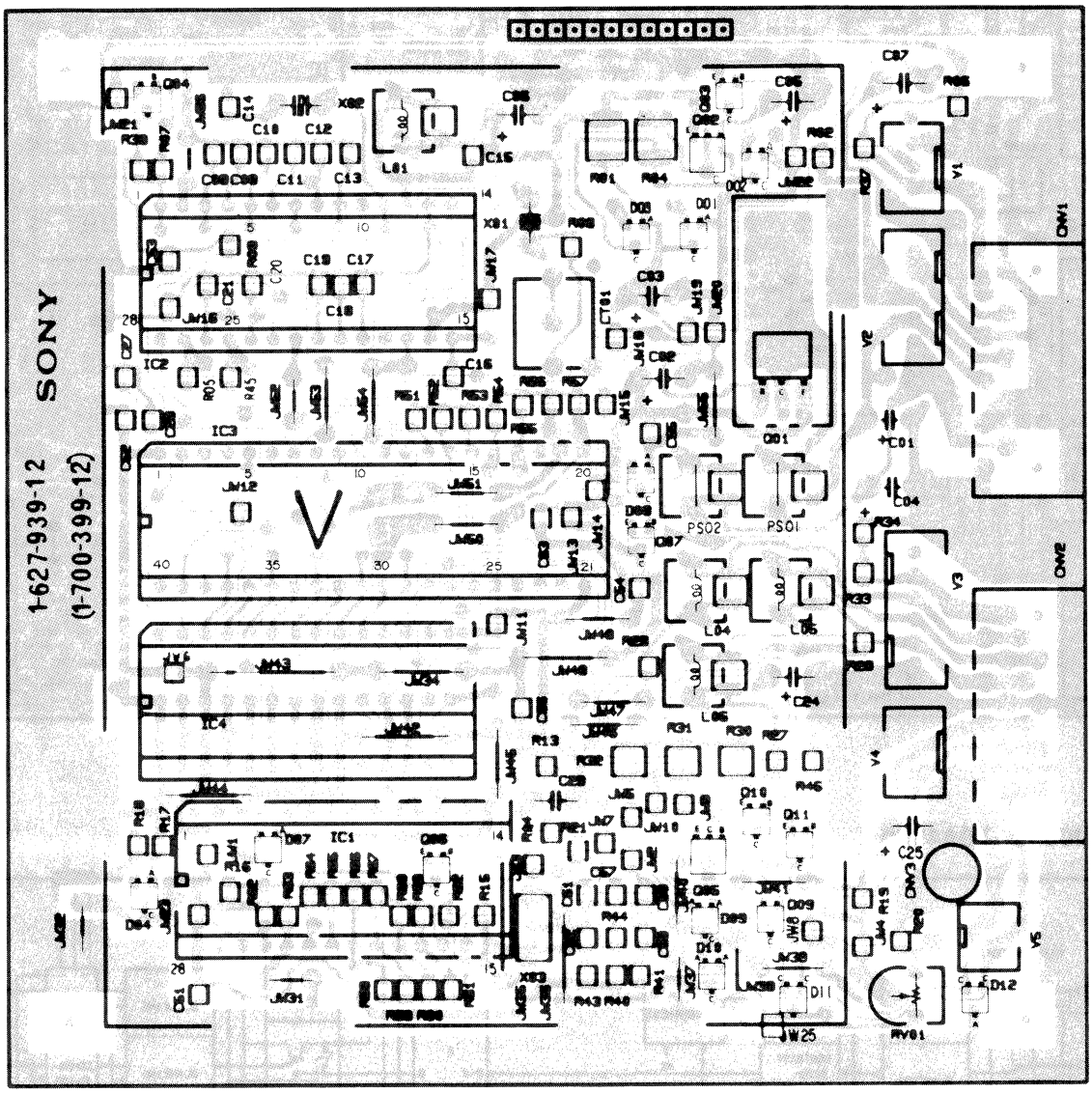
—B Board—

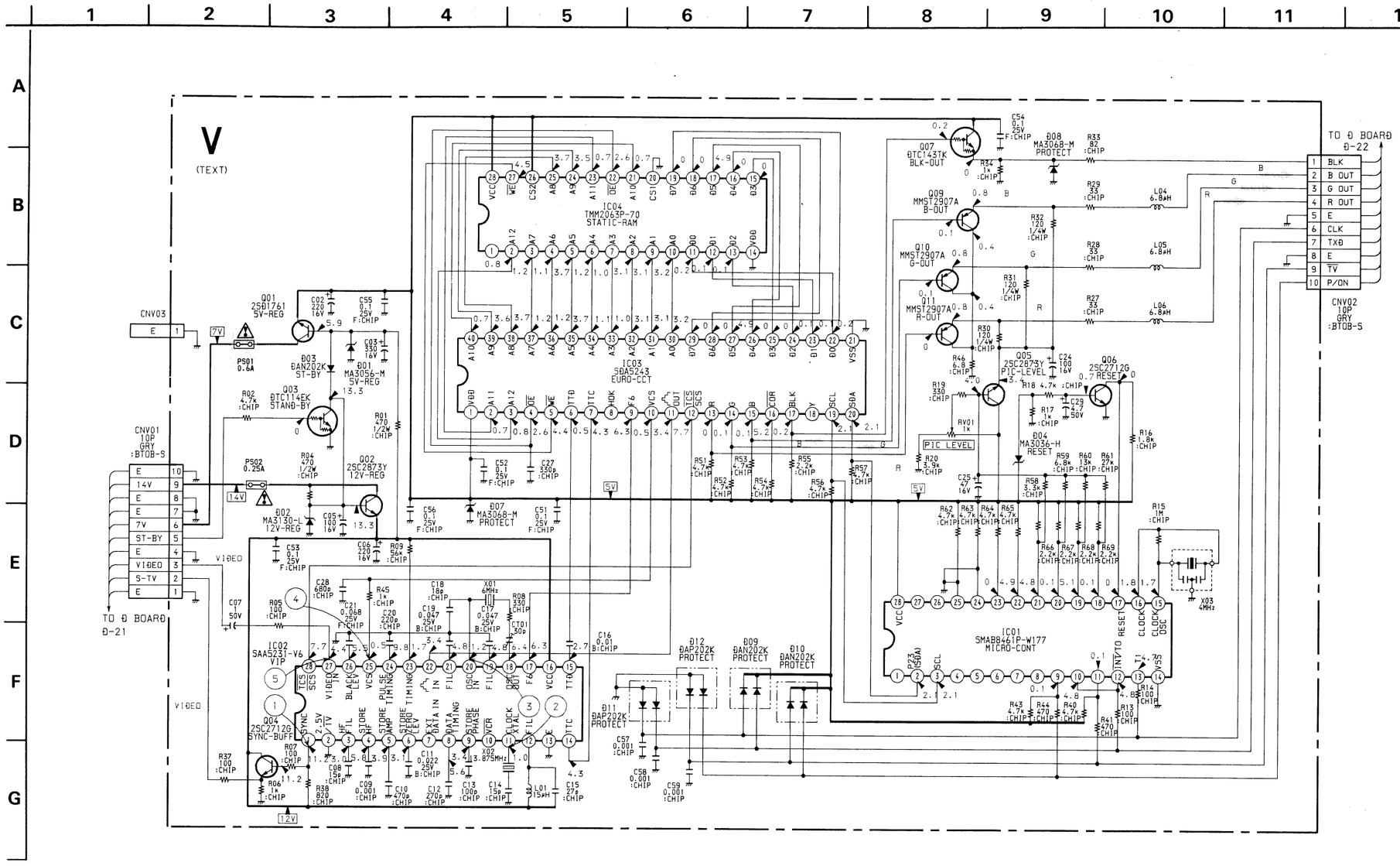


B BOARD IC301 TDA4580

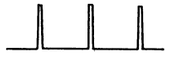


—V Board—


SONY
1-627-939-12
(1-700-399-12)
V
IC1
IC2
IC3
IC4
CN1
CN2
CN3
PS01
PS02
RV01



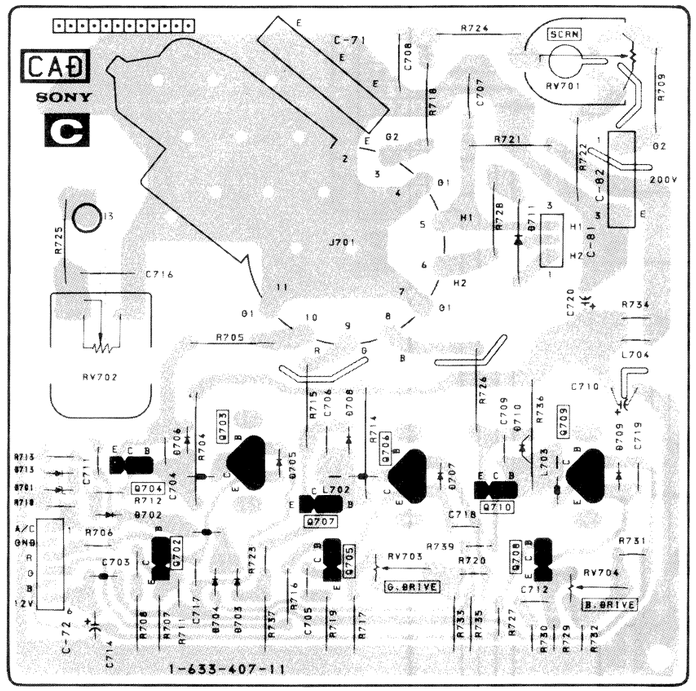
● **WAVEFORMS V BOARD**

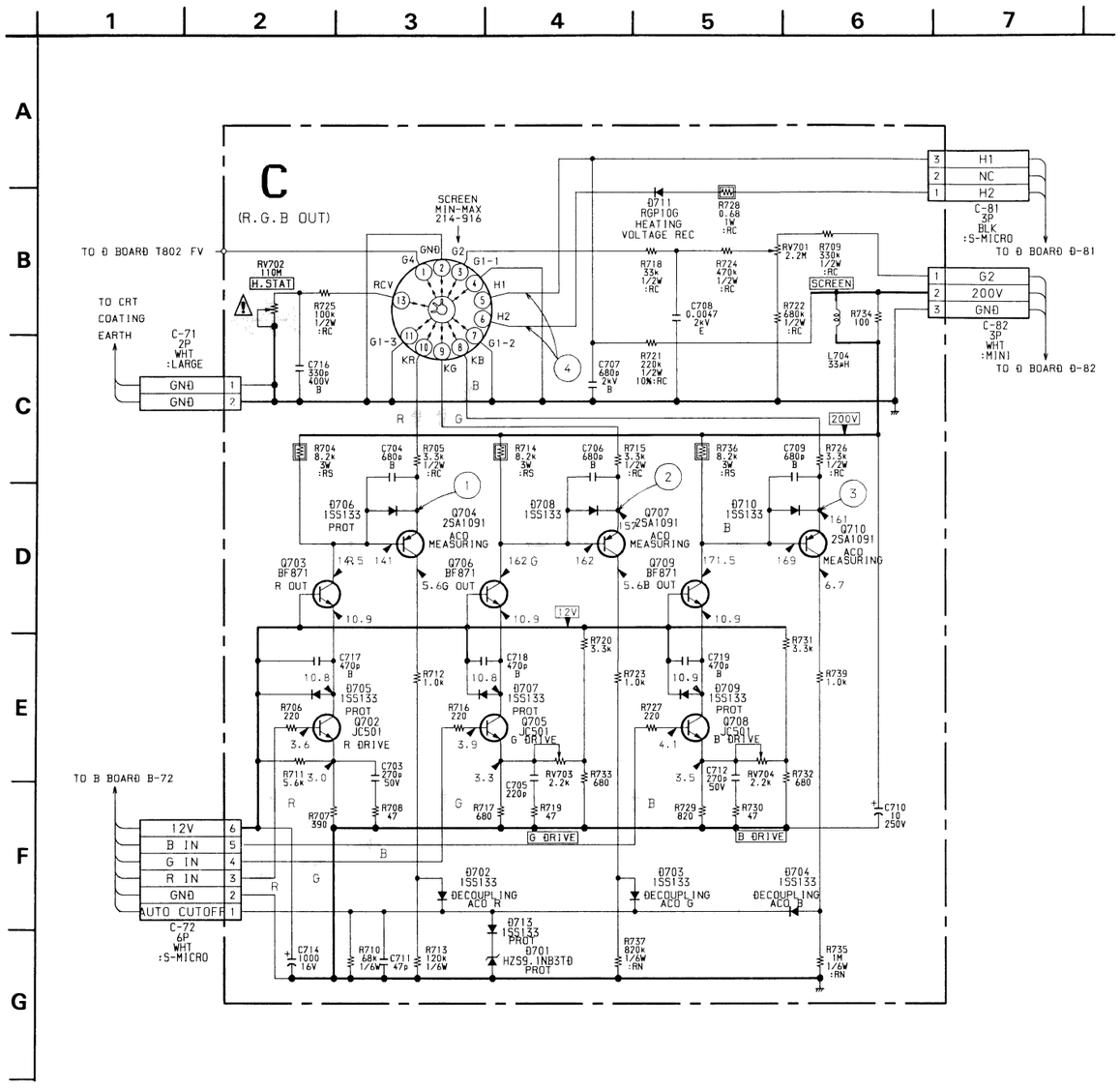
① 0.9Vp-p (H)	② 0.9 Vp-p(13.875MHz)	③ 0.4 Vp-p (6MHz)
④  2.8Vp-p (H)	⑤ 1 Vp-p (H)	

[R・G・B OUT]

C

—C Board—

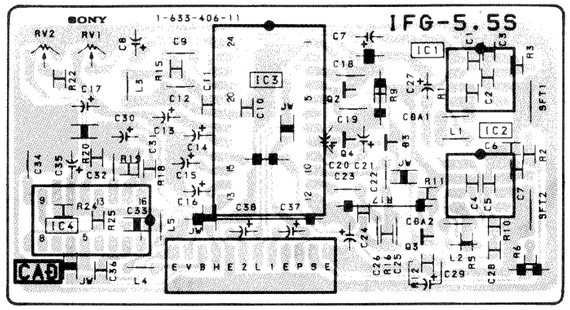




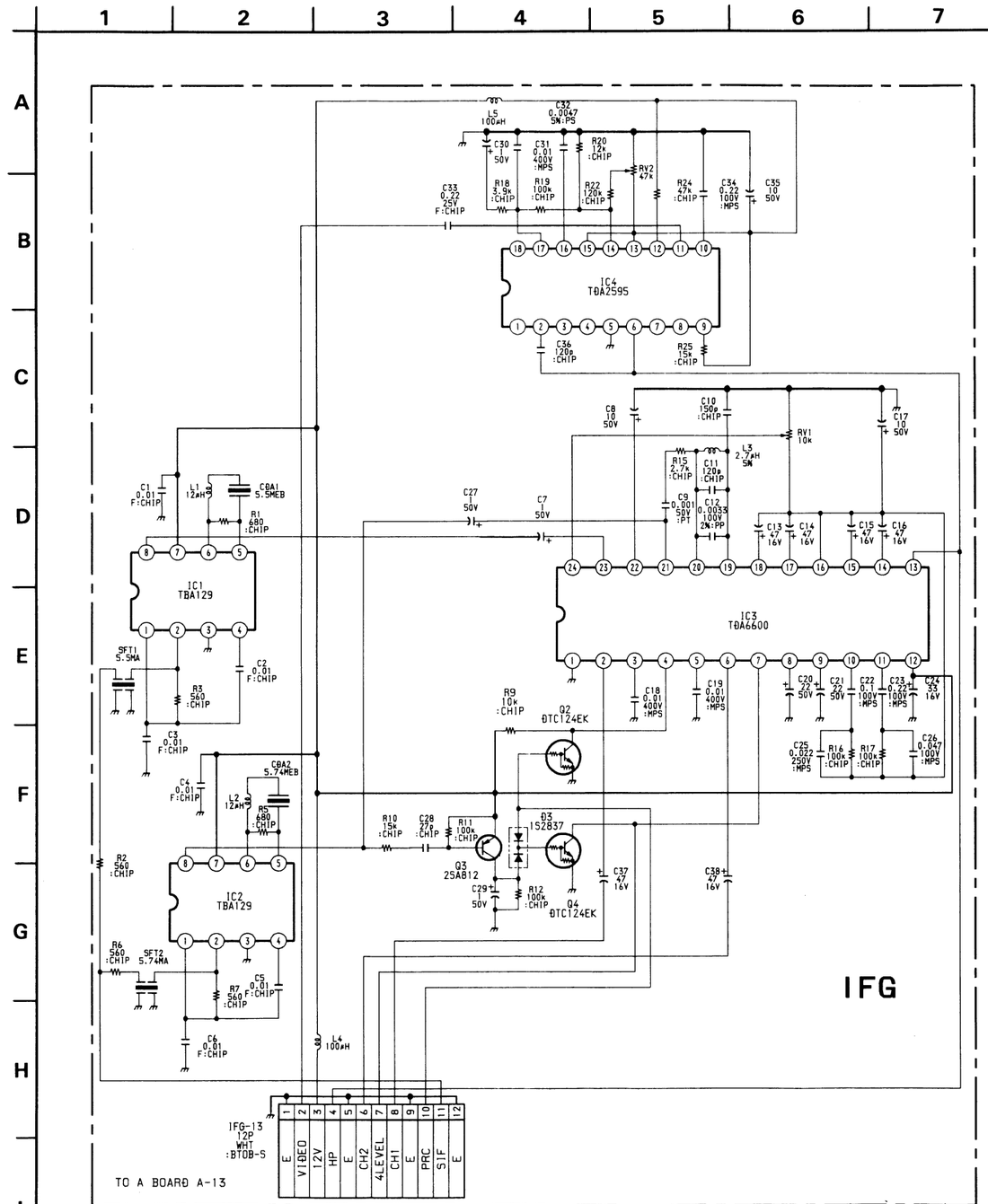
• WAVEFORMS C BOARD

① 120Vp-p (H)	② 100Vp-p (H)
③ 80Vp-p (H)	④ 21 Vp-p (H)

—IFG Board—

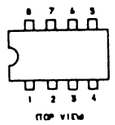


IFG

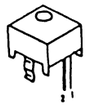


5-4. SEMICONDUCTORS

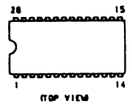
BA4558
SDA2546
TBA129
TEA2014
TEA2031A
μPC4558C



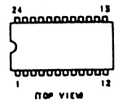
BX1387



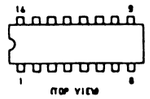
CXA1114P
SAA5231-V6
SMAB8461P-W177
TC5563APL
TDA4580
TDA4650
TDA6200
TEA2028B
TMM2063P-70



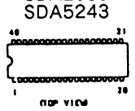
CXD1050A
TD6710AN



MC14053BCP
PCF8574
TC4049BP
TC4053BP
TDA4510/V6
TDA4660
TDA8442-N3
TEA2260



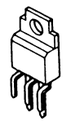
SDA2083
SDA5243



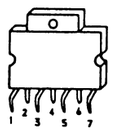
TA8662N

TC6011N

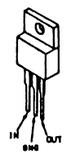
TDA2050



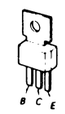
TDA8170



TYA7812CT
μPC24M05HF



BF871



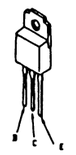
DTA144EK
DTC114EK
DTC124EK
DTC143TK
DTC144EK
MMST2907A
2SA1162G
2SC2712

DTA144ES
DTC124ES
DTC144ES
2SA1162

JA101
JC501
2SA1091
2SD789

2SB734
2SD773
2SD774

2SB1185
2SD1761



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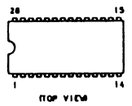
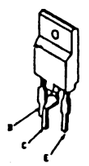


2SC2688

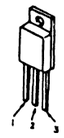
2SC2873Y

2SD1548-LB
2SD1941

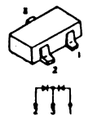


2SD2096

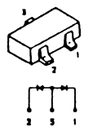
CTU-12S



DAN202K

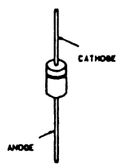


DAP202K

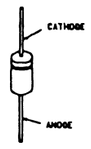


DA204K

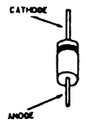
ERC06-15S
ERC25-06S



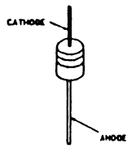
ERD28-08S
ES1F
GP08D
RGP10G
RGP15J



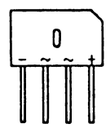
ERD29-08J



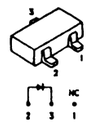
HZS10NB3TD
HZS11NB3TD
HZS13NB2TD
HZS15NB1TD
HZS33NB1TD
HZS36NB4TD
HZS4.7NB2TD
HZS5.6NB2TD
HZS5.6NB3TD
HZS6.2NB2TD
HZS6.8NB3TD
HZS7.5NB3TD
HZS9.1NB3TD
RD5.6ES-B2
1SS133



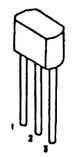
KBU4JL-6088



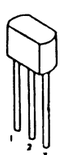
MA3036H
MA3056M
MA3068M
MA3130L



MC911



MC921



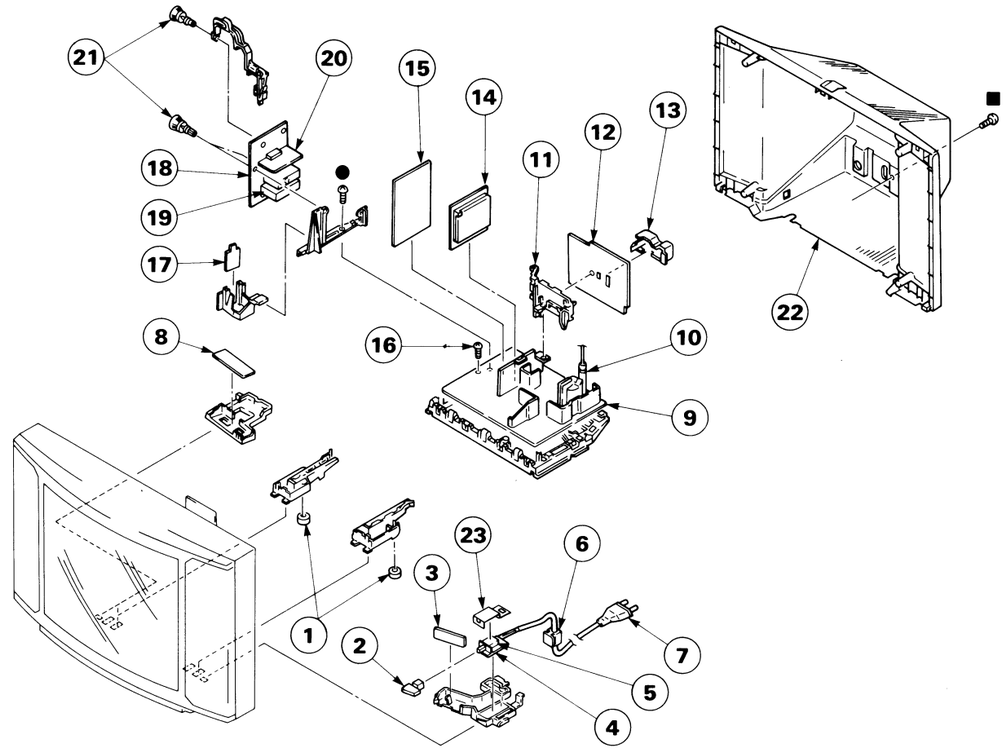
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

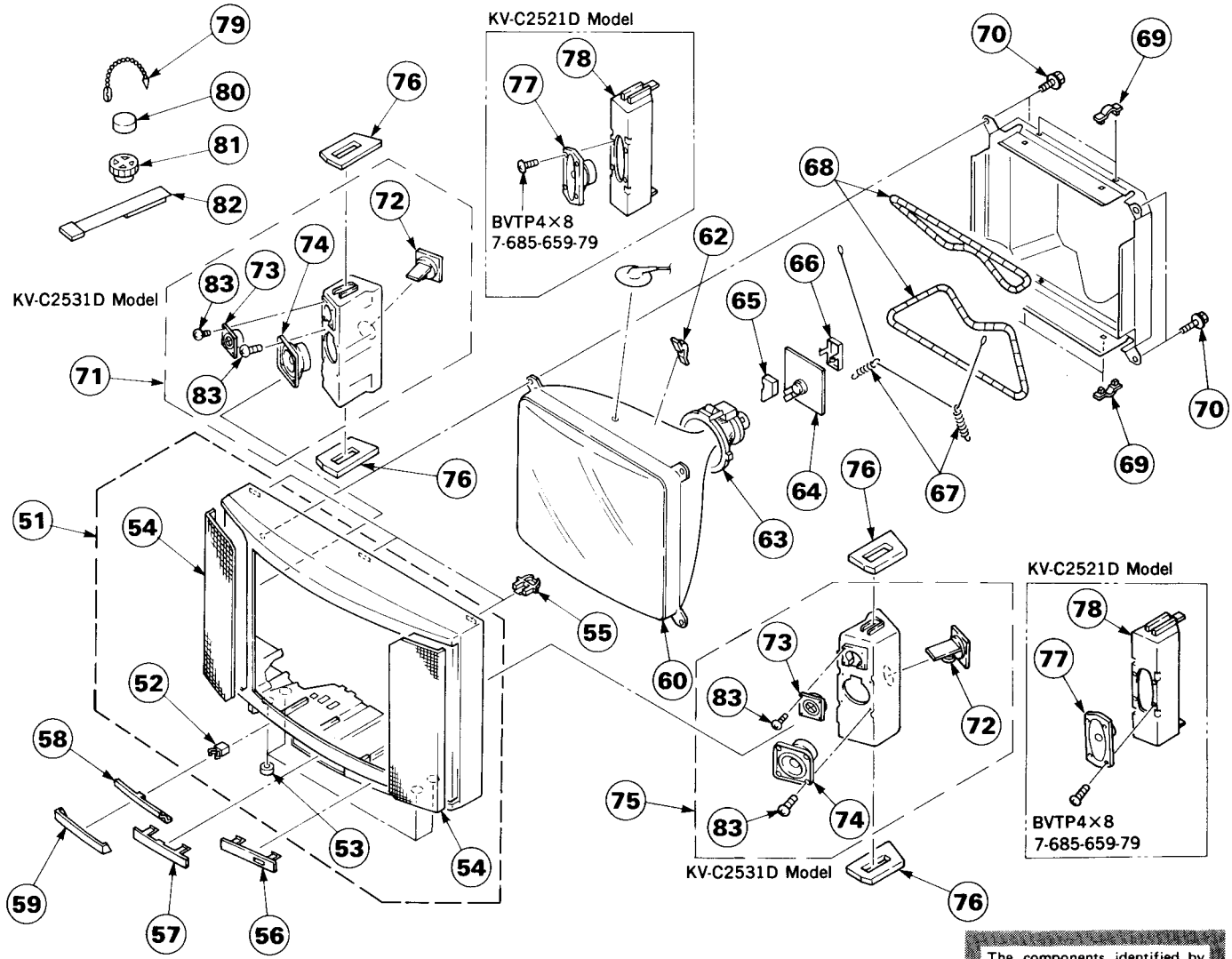
6-1. CHASSIS

● : BVTP3×12 7-685-648-79
■ : BTVP4×16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-809-913-99	FOOT, F	
2	4-394-305-01	BUTTON, POWER	
3	*1-633-410-11	H2 BOARD	
4	*1-633-408-11	F BOARD	
5	⚠1-571-433-11	SWITCH, PUSH (AC POWER)	
6	⚠4-389-201-02	HOLDER, AC CORD	
7	⚠1-575-487-11	CORD,POWER (WITH NOISE FILTER)	
8	*1-633-409-11	H1 BOARD	
9	*A-1642-011-A	D BOARD, COMPLETE	
10	⚠1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)	
11	*4-386-624-11	BRACKET, J	
12	*A-1651-014-A	J1 BOARD, COMPLETE	
13	4-200-014-01	BRACKET, TERMINAL	
14	*A-1347-031-A	V BOARD, COMPLETE	
15	*A-1621-010-A	B BOARD, COMPLETE	
16	4-364-802-00	SCREW (3.5X13)	
17	*1-633-411-11	J2 BOARD	
18	*A-1632-005-A	A BOARD, COMPLETE	
19	⚠1-465-301-11	TUNER, BT (UV-816(PLL))	
20	*A-1654-003-A	IFG BOARD, COMPLETE	
21	4-386-618-01	RIVET, T TYPE	
22	4-200-224-01	COVER, REAR (BLACK)	
	4-200-224-11	COVER, REAR (LIGHT GRAY)(KV-C2531D ONLY)	
23	4-200-274-01	COVER, POWER SWITCH	

6-2. PICTURE TUBE



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4200-032-1	CABINET ASSY (WITH BEZEL ASSY) (BLACK) (KV-C2531D ONLY)	52-54
	X-4200-032-2	CABINET ASSY (WITH BEZEL ASSY) (GRAY) (KV-C2531D ONLY)	52-54
	X-4200-037-1	CABINET ASSY (WITH BEZEL ASSY) (KV-C2521D ONLY)	52-54
52	4-392-036-01	CATCHER, PUSH	
53	4-809-913-99	FOOT, F	
54	X-4200-031-1	PLATE ASSY, ORNAMENTAL (BLACK) (KV-C2531D ONLY)	
	X-4200-031-2	PLATE ASSY, ORNAMENTAL (GRAY) (KV-C2531D ONLY)	
	X-4200-036-1	FRAME ASSY (KV-C2521D ONLY)	
55	4-382-745-01	HOLDER, RC	
56	4-394-315-01	WINDOW, ORNAMENTAL	
57	4-200-222-01	COVER, FRONT	
58	4-394-330-01	DOOR (BLACK)	
	4-394-330-12	DOOR (LIGHT GRAY) (KV-C2531D ONLY)	
59	4-200-390-01	COVER, DOOR	
60	⚠8-733-224-05	PICTURE TUBE (A59JWC60X)	
62	3-704-495-01	SPACER, DY	
63	⚠1-451-311-21	DEFLECTION YOKE (Y25FXA)	
64	*A-1638-004-A	C BOARD, COMPLETE	
65	*4-379-167-01	COVER (MAIN), CV	
66	*4-379-160-01	COVER (REAR LID), CV	
67	4-303-774-99	SPRING	
68	⚠1-426-372-11	COIL, DEMAGNETIZATION	
69	*4-385-916-01	HOLDER (D)	
70	4-373-263-11	SCREW (M), PT	
71	*A-1678-020-A	BOX ASSY, (LEFT), SPEAKER (KV-C2531D ONLY)	72-74, 83
72	1-236-510-11	NETWORK, DIVIDING (KV-C2531D ONLY)	
73	1-544-146-11	SPEAKER (KV-C2531D ONLY)	
74	1-544-147-11	SPEAKER (KV-C2531D ONLY)	
75	*A-1678-019-A	BOX ASSY, (RIGHT), SPEAKER (KV-C2531D ONLY)	72-74, 83
76	4-200-217-01	CUSHION, BOX	
77	1-503-642-41	SPEAKER (KV-C2521D ONLY)	
78	4-200-253-01	BOARD, BAFFLE (KV-C2521D ONLY)	
79	4-308-870-00	CLIP, LEAD WIRE	
80	1-452-032-00	MAGNET, DISK; 10MM ϕ	
81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
82	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
83	4-364-802-00	SCREW (3.5×13) (KV-C2531D ONLY)	

V

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1347-031-A	V BOARD, COMPLETE **********			
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1			
		<CAPACITOR>			
C02	1-124-120-11	ELECT	220MF	20% 16V	
C03	1-124-119-00	ELECT	330MF	20% 16V	
C05	1-126-101-11	ELECT	100MF	20% 16V	
C06	1-124-120-11	ELECT	220MF	20% 16V	
C07	1-124-791-11	ELECT	1MF	20% 50V	
C08	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C09	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C10	1-163-133-00	CERAMIC CHIP	470PF	5% 50V	
C11	1-163-037-11	CERAMIC CHIP	0.022MF	10% 25V	
C12	1-163-127-00	CERAMIC CHIP	270PF	5% 50V	
C13	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C14	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C15	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C16	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C17	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C18	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C19	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C20	1-163-125-00	CERAMIC CHIP	220PF	5% 50V	
C21	1-163-833-00	CERAMIC CHIP	0.068MF	25V	
C24	1-126-101-11	ELECT	100MF	20% 16V	
C25	1-124-477-11	ELECT	47MF	20% 16V	
C27	1-163-129-00	CERAMIC CHIP	330PF	5% 50V	
C28	1-163-137-00	CERAMIC CHIP	680PF	5% 50V	
C29	1-124-927-11	ELECT	4.7MF	20% 50V	
C51	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C52	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C53	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C54	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C55	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C56	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C57	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C58	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C59	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
		<CONNECTOR>			
CNV01	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV02	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV03	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
		<TRIMMER>			
CT01	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)			

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<DIODE>			
D01	8-719-105-91	DIODE RD5.6M-B2			
D02	8-719-106-79	DIODE RD13M-B1			
D03	8-719-400-18	DIODE MA152WK			
D04	8-719-105-52	DIODE RD3.6M-B2			
D07	8-719-106-17	DIODE RD6.8M-B2			
D08	8-719-106-17	DIODE RD6.8M-B2			
D09	8-719-400-18	DIODE MA152WK			
D10	8-719-400-18	DIODE MA152WK			
D11	8-719-914-44	DIODE DAP202K			
D12	8-719-914-44	DIODE DAP202K			
		<IC>			
IC1	8-759-986-92	IC MAB-8461P-W177			
IC2	8-759-972-96	IC SAA5231-V6			
IC3	8-759-032-98	IC SDA5243			
IC4	8-759-230-68	IC TMM2063P-70			
		<COIL>			
L01	1-408-411-00	INDUCTOR	15UH		
L04	1-408-407-00	INDUCTOR	6.8UH		
L05	1-408-407-00	INDUCTOR	6.8UH		
L06	1-408-407-00	INDUCTOR	6.8UH		
		<IC LINK>			
PS01	⚠1-532-679-91	LINK, IC (ICP-N15) 0.6A			
PS02	⚠1-532-727-91	LINK, IC 0.25A			
		<TRANSISTOR>			
Q3	8-729-900-53	TRANSISTOR DTC114EK			
Q01	8-729-107-26	TRANSISTOR 2SD1585-K			
Q02	8-729-807-50	TRANSISTOR 2SD1623-R			
Q04	8-729-271-22	TRANSISTOR 2SC2712-G			
Q05	8-729-807-50	TRANSISTOR 2SD1623-R			
Q06	8-729-271-22	TRANSISTOR 2SC2712-G			
Q07	8-729-900-98	TRANSISTOR DTC143TK			
Q09	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q10	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q11	8-729-807-87	TRANSISTOR 2SB1295-UL6			
		<RESISTOR>			
JW1	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW2	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW3	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW4	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW5	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW6	1-216-295-00	METAL GLAZE	0	5% 1/10W	

V B

REF.NO.	PART NO.	DESCRIPTION				REMARK
JW7	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW8	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW9	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW10	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW12	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW13	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW14	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW15	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW16	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW18	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW19	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW20	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW21	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW22	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW24	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW25	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R01	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R02	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R04	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R05	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R06	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R07	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R08	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R09	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R15	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R16	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R17	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R18	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R19	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R20	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R27	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R28	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R29	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R30	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R31	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R32	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R33	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R34	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R37	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R38	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R41	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R43	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R44	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R45	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R46	1-216-311-00	METAL GLAZE	6.8	5%	1/10W	
R51	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R52	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R53	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R54	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R55	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R57	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R58	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R59	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R60	1-216-076-00	METAL GLAZE	13K	5%	1/10W	
R61	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R62	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R63	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R64	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R65	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R66	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R67	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R68	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R69	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
		<VARIABLE RESISTOR>				
RV01	1-238-012-11	RES, ADJ, CARBON 1K				
		<CRYSTAL>				
X01	1-567-162-00	OSCILLATOR, CRYSTAL				
X02	1-567-495-11	OSCILLATOR, CRYSTAL				
X03	1-577-082-11	VIBRATOR, CERAMIC				
**********						
	*A-1621-010-A	B BOARD, COMPLETE				
		**********				
	*1-565-393-11	CONNECTOR, BOARD TO BOARD				
	*1-568-881-51	PIN, CONNECTOR 6P				
		<CAPACITOR>				
C301	1-106-228-00	MYLAR	0.22MF	10%	100V	
C302	1-106-228-00	MYLAR	0.22MF	10%	100V	
C303	1-124-122-11	ELECT	100MF	20%	50V	
C304	1-106-228-00	MYLAR	0.22MF	10%	100V	
C305	1-124-119-00	ELECT	330MF	20%	16V	
C306	1-124-902-00	ELECT	0.47MF	20%	50V	
C307	1-124-902-00	ELECT	0.47MF	20%	50V	
C308	1-124-902-00	ELECT	0.47MF	20%	50V	
C309	1-124-902-00	ELECT	0.47MF	20%	50V	
C310	1-106-220-00	MYLAR	0.1MF	10%	100V	
C311	1-106-220-00	MYLAR	0.1MF	10%	100V	
C312	1-124-902-00	ELECT	0.47MF	20%	50V	
C313	1-124-902-00	ELECT	0.47MF	20%	50V	
C314	1-124-902-00	ELECT	0.47MF	20%	50V	
C315	1-124-791-11	ELECT	1MF	20%	50V	
C316	1-106-220-00	MYLAR	0.1MF	10%	100V	
C317	1-124-910-11	ELECT	47MF	20%	50V	
C318	1-106-220-00	MYLAR	0.1MF	10%	100V	
C320	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C321	1-163-127-00	CERAMIC CHIP	270PF	5%	50V	
C322	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C323	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C327	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C330	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C331	1-106-220-00	MYLAR	0.1MF	10%	100V	
C332	1-126-103-11	ELECT	470MF	20%	16V	
C333	1-106-375-12	MYLAR	0.022MF	10%	250V	
C334	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C335	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C336	1-102-816-00	CERAMIC	120PF	5%	50V	
C337	1-101-004-00	CERAMIC	0.01MF		50V	
C338	1-106-220-00	MYLAR	0.1MF	10%	100V	
C339	1-106-220-00	MYLAR	0.1MF	10%	100V	
C341	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C343	1-106-383-00	MYLAR	0.047MF	10%	100V	
C344	1-130-783-00	MYLAR	0.33MF	10%	100V	
C345	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
C346	1-163-033-00	CERAMIC CHIP	0.022MF		50V	

B

REF.NO.	PART NO.	DESCRIPTION				REMARK
C347	1-124-791-11	ELECT	1MF	20%	50V	
C348	1-124-791-11	ELECT	1MF	20%	50V	
C349	1-101-004-00	CERAMIC	0.01MF		50V	
C350	1-101-004-00	CERAMIC	0.01MF		50V	
C351	1-106-375-12	MYLAR	0.022MF	10%	250V	
C352	1-106-375-12	MYLAR	0.022MF	10%	250V	
C353	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V	
C354	1-124-910-11	ELECT	47MF	20%	50V	
C357	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C358	1-124-917-11	ELECT	33MF	20%	50V	
C359	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C360	1-101-004-00	CERAMIC	0.01MF		50V	
C364	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C365	1-124-910-11	ELECT	47MF	20%	50V	
C366	1-126-103-11	ELECT	470MF	20%	16V	
C367	1-101-004-00	CERAMIC	0.01MF		50V	
C381	1-124-902-00	ELECT	0.47MF	20%	50V	
C382	1-124-927-11	ELECT	4.7MF	20%	50V	
C384	1-124-910-11	ELECT	47MF	20%	50V	
C385	1-124-927-11	ELECT	4.7MF	20%	50V	
C386	1-124-927-11	ELECT	4.7MF	20%	50V	
C387	1-130-833-00	MYLAR	0.82MF	10%	63V	
C388	1-106-220-00	MYLAR	0.1MF	10%	100V	
C401	1-101-361-00	CERAMIC	150PF	5%	50V	
C402	1-163-197-00	CERAMIC CHIP	470PF	5%	50V	
C403	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C1311	1-163-111-00	CERAMIC CHIP	56PF	5%	50V	
C1312	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1313	1-102-953-00	CERAMIC	18PF	5%	50V	

<TRIMMER>

CT331	1-141-418-11	CAP, ADJ	
CT332	1-141-418-11	CAP, ADJ	

<DIODE>

D301	8-719-911-19	DIODE ISS119	
D302	8-719-911-19	DIODE ISS119	
D303	8-719-911-19	DIODE ISS119	
D304	8-719-911-19	DIODE ISS119	
D305	8-719-911-19	DIODE ISS119	
D307	8-719-929-24	DIODE HZS11NB3	
D308	8-719-911-19	DIODE ISS119	
D309	8-719-911-19	DIODE ISS119	
D310	8-719-929-24	DIODE HZS11NB3	
D311	8-719-929-24	DIODE HZS11NB3	
D312	8-719-929-24	DIODE HZS11NB3	
D313	8-719-911-19	DIODE ISS119	
D314	8-719-911-19	DIODE ISS119	
D315	8-719-911-19	DIODE ISS119	
D316	8-719-911-19	DIODE ISS119	
D317	8-719-911-19	DIODE ISS119	
D318	8-719-911-19	DIODE ISS119	
D319	8-719-911-19	DIODE ISS119	
D320	8-719-911-19	DIODE ISS119	
D331	8-719-911-19	DIODE ISS119	
D332	8-719-911-19	DIODE ISS119	
D333	8-719-911-19	DIODE ISS119	
D350	8-719-928-94	DIODE HZS5.6NB3	

<DELAY LINE>

DL332	1-236-062-11	MODULE, Y DELAY LINE
DL401	1-415-613-11	DELAY LINE, Y

<IC>

IC301	8-759-979-85	IC TDA4580-V4
IC302	8-759-980-60	IC TDA8442N3
IC303	8-759-040-53	IC MC14053BCP
IC331	8-759-990-29	IC TDA4650
IC332	8-759-990-30	IC TDA4660

<COIL>

L301	1-410-868-11	INDUCTOR	4.7UH
L302	1-410-868-11	INDUCTOR	4.7UH
L303	1-408-408-00	INDUCTOR	8.2UH
L331	1-404-554-11	COIL	
L336	1-404-554-11	COIL	
L338	1-408-409-00	INDUCTOR	10UH
L1301	1-408-425-00	INDUCTOR	220UH
L1302	1-408-419-00	INDUCTOR	68UH

<TRANSISTOR>

Q301	8-729-271-22	TRANSISTOR 2SC2712-G
Q303	8-729-271-22	TRANSISTOR 2SC2712-G
Q305	8-729-901-00	TRANSISTOR DTC124EK
Q306	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q311	8-729-271-22	TRANSISTOR 2SC2712-G
Q312	8-729-271-22	TRANSISTOR 2SC2712-G
Q313	8-729-271-22	TRANSISTOR 2SC2712-G
Q316	8-729-271-22	TRANSISTOR 2SC2712-G
Q330	8-729-216-22	TRANSISTOR 2SA1162-G
Q331	8-729-901-00	TRANSISTOR DTC124EK
Q332	8-729-216-22	TRANSISTOR 2SA1162-G
Q333	8-729-216-22	TRANSISTOR 2SA1162-G
Q334	8-729-271-22	TRANSISTOR 2SC2712-G
Q335	8-729-271-22	TRANSISTOR 2SC2712-G
Q336	8-729-900-36	TRANSISTOR DTC124ES
Q381	8-729-901-00	TRANSISTOR DTC124EK
Q382	8-729-271-22	TRANSISTOR 2SC2712-G
Q1301	8-729-900-36	TRANSISTOR DTC124ES
Q1306	8-729-271-22	TRANSISTOR 2SC2712-G

<RESISTOR>

JR384	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR390	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R301	1-249-409-11	CARBON	220	5%	1/4W	
R302	1-249-409-11	CARBON	220	5%	1/4W	
R303	1-249-409-11	CARBON	220	5%	1/4W	
R304	1-249-409-11	CARBON	220	5%	1/4W	
R305	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R307	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R308	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R309	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R310	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R311	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R312	1-249-409-11	CARBON	220	5%	1/4W	
R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R314	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R315	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R316	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R317	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R318	1-249-429-11	CARBON	10K	5%	1/4W	
R319	1-249-409-11	CARBON	220	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R320	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R321	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R322	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R323	1-249-422-11	CARBON	2.7K	5%	1/4W	
R324	1-249-429-11	CARBON	10K	5%	1/4W	
R325	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R328	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R329	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R330	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R331	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R332	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R333	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R334	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R335	1-247-852-11	CARBON	7.5K	5%	1/4W	
R336	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R337	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R338	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R339	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R340	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R341	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R342	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R344	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R346	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R348	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R349	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R350	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R351	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R354	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R355	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R356	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R358	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R359	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R360	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R361	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R362	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R363	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R364	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R365	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R366	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R367	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R372	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R376	1-249-429-11	CARBON	10K	5%	1/4W	
R377	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R378	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R379	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R380	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R381	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R382	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R383	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R384	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R385	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R387	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R388	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R389	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R390	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R391	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R392	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R393	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R394	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R395	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R396	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R398	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R401	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R402	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R405	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R406	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R407	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R410	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R412	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1305	1-216-001-00	METAL GLAZE	10	5%	1/10W	

<VARIABLE RESISTOR>

RV331	1-238-012-11	RES, ADJ, CARBON 1K	

<CRYSTAL>

X331	1-567-307-11	OSCILLATOR, CRYSTAL	
X332	1-567-131-00	OSCILLATOR, CRYSTAL	

****

	*1-633-408-11	F BOARD	
		*******	
	*1-566-664-11	PIN, CONNECTOR 4P	

<FUSE>

F1601⚠	1-532-350-11	FUSE, TIME-LAG 4A/250V	
	1-533-230-11	HOLDER, FUSE; F1601	

<SWITCH>

S1701⚠	1-571-433-11	SWITCH, PUSH (AC POWER)	

****

	*A-1632-005-A	A BOARD, COMPLETE	
		**********	
	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
	*1-564-881-11	PLUG, CONNECTOR 4P	
	*1-564-886-11	PLUG, CONNECTOR 9P	
	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P	

<CAPACITOR>

C101	1-126-233-11	ELECT	22MF	20%	50V
C102	1-126-103-11	ELECT	470MF	20%	16V
C104	1-124-910-11	ELECT	47MF	20%	50V
C106	1-126-233-11	ELECT	22MF	20%	50V
C108	1-136-165-00	FILM	0.1MF	5%	50V
C109	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C111	1-124-925-11	ELECT	2.2MF	20%	50V
C115	1-124-925-11	ELECT	2.2MF	20%	50V
C127	1-124-122-11	ELECT	100MF	20%	50V
C128	1-124-910-11	ELECT	47MF	20%	50V
C129	1-124-910-11	ELECT	47MF	20%	50V
C138	1-136-165-00	FILM	0.1MF	5%	50V
C171	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C172	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C177	1-102-074-00	CERAMIC	0.001MF	10%	50V
C181	1-101-004-00	CERAMIC	0.01MF		50V

A **C**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<IC>	
IC103	8-759-979-62	IC PCF8574	
		<COIL>	
L100	1-410-116-11	INDUCTOR 0.56MMH	
L101	1-408-225-00	INDUCTOR 3.3UH	
L102	1-408-413-00	INDUCTOR 22UH	
L107	1-408-397-00	INDUCTOR 1UH	
		<TRANSISTOR>	
Q113	8-729-271-22	TRANSISTOR 2SC2712 G	
Q114	8-729-271-22	TRANSISTOR 2SC2712-G	
Q115	8-729-271-22	TRANSISTOR 2SC2712-G	
Q116	8-729-271-22	TRANSISTOR 2SC2712-G	
Q125	8-729-900-89	TRANSISTOR DTC144ES	
Q126	8-729-901-06	TRANSISTOR DTA144EK	
Q181	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<RESISTOR>	
JR252	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR253	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR255	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR256	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR257	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR258	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R101	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R105	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R107	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R108	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R116	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R118	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R128	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R129	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R130	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R157	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R158	1-249-409-11	CARBON 220 5% 1/4W	
R159	1-249-409-11	CARBON 220 5% 1/4W	
R161	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R162	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R163	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R164	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R165	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R167	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R168	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R169	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R181	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R182	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R193	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R194	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R195	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R196	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
		<TUNER>	
TU101⚠	1-465-301-11	TUNER, ET (UV-816(PLL))	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<IF BLOCK>	
VIF101	1-466-154-21	IF BLOCK (IFG-389S)	
		**********	
	*A-1638-004-A	C BOARD, COMPLETE **********	
	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
	*1-568-878-51	PIN, CONNECTOR 3P	
	*1-568-881-51	PIN, CONNECTOR 6P	
	*4-379-160-01	COVER (REAR LID), CV	
	*4-379-167-01	COVER (MAIN), CV	
		<CONNECTOR>	
C71	*1-506-371-00	PIN, CONNECTOR 2P	
		<CAPACITOR>	
C703	1-102-980-00	CERAMIC 270PF 5% 50V	
C704	1-102-116-00	CERAMIC 680PF 10% 50V	
C705	1-102-978-00	CERAMIC 220PF 5% 50V	
C706	1-102-116-00	CERAMIC 680PF 10% 50V	
C707	1-162-116-00	CERAMIC 680PF 10% 2KV	
C708	1-162-114-00	CERAMIC 0.0047MF 2KV	
C709	1-102-116-00	CERAMIC 680PF 10% 50V	
C710	1-123-947-00	ELECT 10MF 20% 250V	
C711	1-101-880-00	CERAMIC 47PF 5% 50V	
C712	1-102-980-00	CERAMIC 270PF 5% 50V	
C714	1-124-360-00	ELECT 1000MF 20% 16V	
C716	1-162-622-11	CERAMIC 330PF 10% 400V	
C717	1-102-114-00	CERAMIC 470PF 10% 50V	
C718	1-102-114-00	CERAMIC 470PF 10% 50V	
C719	1-102-114-00	CERAMIC 470PF 10% 50V	
		<DIODE>	
D701	8-719-929-16	DIODE HZS9.1NB3	
D702	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D706	8-719-911-19	DIODE 1SS119	
D707	8-719-911-19	DIODE 1SS119	
D708	8-719-911-19	DIODE 1SS119	
D709	8-719-911-19	DIODE 1SS119	
D710	8-719-911-19	DIODE 1SS119	
D711	8-719-300-33	DIODE RU-3AM	
D713	8-719-911-19	DIODE 1SS119	
		<JACK>	
J701	1-526-990-11	SOCKET, PICTURE TUBE	
		<COIL>	
L704	1-410-878-11	INDUCTOR 33UH	
		<TRANSISTOR>	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-906-70	TRANSISTOR BF871	
Q704	8-729-200-17	TRANSISTOR 2SA1091-O	
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION	REMARK
Q706	8-729-906-70	TRANSISTOR BF871	
Q707	8-729-200-17	TRANSISTOR 2SA1091-O	
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q709	8-729-906-70	TRANSISTOR BF871	
Q710	8-729-200-17	TRANSISTOR 2SA1091-O	

<RESISTOR>

R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-412-11	CARBON	390	5%	1/4W	
R708	1-249-401-11	CARBON	47	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-465-00	METAL	68K	1%	1/6W	
R711	1-249-426-11	CARBON	5.6K	5%	1/4W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-471-00	METAL	120K	1%	1/6W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-401-11	CARBON	47	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R730	1-249-401-11	CARBON	47	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-215-493-00	METAL	1M	1%	1/6W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-215-491-00	METAL	820K	1%	1/6W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	

<VARIABLE RESISTOR>

RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M
RV702⚠	1-230-619-11	RES, ADJ, METAL GLAZE 110M
RV703	1-237-749-11	RES, ADJ, CARBON 2200
RV704	1-237-749-11	RES, ADJ, CARBON 2200

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*A-1642-011-A	D BOARD, COMPLETE	
	**********	
*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
*1-568-106-11	PIN, CONNECTOR 4P	
*1-568-536-11	PLUG (MINIATURE DY) 6P	
*1-568-878-51	PIN, CONNECTOR 3P	
*1-568-881-51	PIN, CONNECTOR 6P	
*1-568-882-51	PIN, CONNECTOR 7P	
4-200-091-01	HOLDER, IC	
*4-341-751-01	EYELET	
*4-341-752-01	EYELET	
*4-368-683-01	SPRING	

<CAPACITOR>

C002	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C003	1-123-875-11	ELECT	10MF	20%	50V
C004	1-124-120-11	ELECT	220MF	20%	16V
C005	1-124-791-11	ELECT	1MF	20%	50V
C006	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C007	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C008	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C009	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C010	1-124-120-11	ELECT	220MF	20%	16V
C011	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C012	1-123-875-11	ELECT	10MF	20%	50V
C013	1-106-220-00	MYLAR	0.1MF	10%	100V
C014	1-106-220-00	MYLAR	0.1MF	10%	100V
C015	1-124-902-00	ELECT	0.47MF	20%	50V
C016	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C017	1-106-220-00	MYLAR	0.1MF	10%	100V
C018	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C019	1-106-383-00	MYLAR	0.047MF	10%	100V
C020	1-124-917-11	ELECT	33MF	20%	50V
C021	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C022	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C023	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C024	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C025	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C027	1-124-910-11	ELECT	47MF	20%	50V
C029	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C030	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C031	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C032	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C251	1-124-791-11	ELECT	1MF	20%	50V
C252	1-126-233-11	ELECT	22MF	20%	50V
C253	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C254	1-106-220-00	MYLAR	0.1MF	10%	100V
C255	1-124-636-00	ELECT	3300MF	20%	25V
C261	1-124-791-11	ELECT	1MF	20%	50V
C262	1-126-233-11	ELECT	22MF	20%	50V
C263	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C264	1-106-220-00	MYLAR	0.1MF	10%	100V
C265	1-124-564-11	ELECT	4700MF	20%	25V
C501	1-124-927-11	ELECT	4.7MF	20%	50V
C502	1-124-927-11	ELECT	4.7MF	20%	50V
C503	1-106-371-00	MYLAR	0.015MF	10%	400V
C504	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V
C506	1-106-375-12	MYLAR	0.022MF	10%	250V
C507	1-130-783-00	MYLAR	0.33MF	10%	100V
C508	1-106-375-12	MYLAR	0.022MF	10%	250V
C509	1-106-220-00	MYLAR	0.1MF	10%	100V
C510	1-161-959-00	CERAMIC	22PF	10%	500V
C511	1-108-620-11	MYLAR	0.0033MF	10%	100V
C512	1-106-220-00	MYLAR	0.1MF	10%	100V
C513	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C514	1-106-228-00	MYLAR	0.22MF	10%	100V
C515	1-124-791-11	ELECT	1MF	20%	50V
C516	1-108-614-11	MYLAR	0.001MF	10%	100V
C517	1-124-252-00	ELECT	0.33MF	20%	50V
C518	1-124-902-00	ELECT	0.47MF	20%	50V

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
C519	1-136-173-00	FILM	0.47MF	5%	50V	
C520	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C521	1-106-220-00	MYLAR	0.1MF	10%	100V	
C522	1-124-122-11	ELECT	100MF	20%	50V	
C523	1-108-614-11	MYLAR	0.001MF	10%	100V	
C524	1-108-798-11	MYLAR	0.0033MF	5%	50V	
C525	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C526	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C527	1-106-220-00	MYLAR	0.1MF	10%	100V	
C531	1-124-190-00	ELECT	680MF	10%	25V	
C532	1-124-514-11	ELECT	100MF	20%	50V	
C533	1-106-216-00	MYLAR	0.068MF	10%	100V	
C534	1-124-120-11	ELECT	220MF	20%	16V	
C536	1-131-365-00	TANTALUM	10MF	10%	16V	
C537	1-124-791-11	ELECT	1MF	20%	50V	
C538	1-108-614-11	MYLAR	0.001MF	10%	100V	
C539	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C540	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C592	1-124-122-11	ELECT	100MF	20%	50V	
C593	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C601 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C602 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C603 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C604 ⚠	1-125-318-11	ELECT(BLOCK)	220MF	20%	400V	
C605	1-124-510-11	ELECT	220MF	20%	35V	
C606	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C607	1-130-834-00	MYLAR	1MF	10%	63V	
C608	1-124-927-11	ELECT	4.7MF	20%	50V	
C611	1-124-910-11	ELECT	47MF	20%	50V	
C612	1-108-614-11	MYLAR	0.001MF	10%	100V	
C613	1-136-539-11	FILM	0.0022MF	3%	2KV	
C614	1-102-030-00	CERAMIC	330PF	10%	500V	
C615	1-124-557-11	ELECT	1000MF	20%	25V	
C616	1-102-030-00	CERAMIC	330PF	10%	500V	
C617	1-124-122-11	ELECT	100MF	20%	50V	
C618	1-162-115-00	CERAMIC	330PF	10%	2KV	
C619	1-124-556-11	ELECT	2200MF	20%	16V	
C620	1-136-173-00	FILM	0.47MF	5%	50V	
C621	1-124-347-00	ELECT	100MF	20%	160V	
C622	1-124-556-11	ELECT	2200MF	20%	16V	
C623	1-124-910-11	ELECT	47MF	20%	50V	
C624	1-124-122-11	ELECT	100MF	20%	50V	
C625	1-124-360-00	ELECT	1000MF	20%	16V	
C626	1-123-875-11	ELECT	10MF	20%	50V	
C627	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C631	1-124-927-11	ELECT	4.7MF	20%	50V	
C632	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C633	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C801	1-126-105-11	ELECT	1000MF	20%	35V	
C802	1-102-030-00	CERAMIC	330PF	10%	500V	
C804	1-123-948-00	ELECT	22MF	20%	250V	
C805	1-162-114-00	CERAMIC	0.0047MF		2KV	
C806	1-106-220-00	MYLAR	0.1MF	10%	100V	
C807	1-106-395-00	MYLAR	0.15MF	10%	200V	
C810	1-123-024-21	ELECT	33MF		160V	
C811	1-136-113-00	FILM	2MF	5%	200V	
C812	1-124-634-11	ELECT	1MF	20%	250V	
C813	1-102-212-00	CERAMIC	820PF	10%	500V	
C814 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV	
C815	1-136-111-00	FILM	1MF	5%	200V	
C817	1-136-565-11	FILM	0.015MF	3%	1.4KV	
C818	1-136-759-11	FILM	0.039MF	10%	630V	
C819 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV	
C820	1-106-218-00	MYLAR	0.0082MF	10%	400V	
C821 ⚠	1-162-116-51	CERAMIC	680PF	10%	2KV	
C822	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C823	1-106-359-00	MYLAR	0.0047MF	10%	400V	
C824	1-102-212-00	CERAMIC	820PF	10%	500V	
C825	1-106-375-12	MYLAR	0.022MF	10%	250V	
C1601 ⚠	1-136-518-11	FILM	0.33MF	20%	300V	
C1602 ⚠	1-136-519-11	FILM	0.47MF	20%	300V	
C1603 ⚠	1-164-322-51	CERAMIC	0.0047MF	20%	400V	
C1604 ⚠	1-164-322-51	CERAMIC	0.0047MF	20%	400V	
C1605 ⚠	1-164-322-51	CERAMIC	0.0047MF	20%	400V	
C1606 ⚠	1-164-322-51	CERAMIC	0.0047MF	20%	400V	
C1607 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	

<FILTER>

CF001	1-577-364-11	VIBRATOR, CERAMIC	
CF501	1-567-888-11	OSCILLATOR, CERAMIC	

<DIODE>

D001	8-719-911-19	DIODE	1SS119
D002	8-719-929-03	DIODE	HZS6.8NB3
D003	8-719-911-19	DIODE	1SS119
D004	8-719-911-19	DIODE	1SS119
D005	8-719-109-89	DIODE	RD5.6ES-B2
D006	8-719-929-71	DIODE	HZS33NB1
D007	8-719-911-19	DIODE	1SS119
D009	8-719-109-89	DIODE	RD5.6ES-B2
D010	8-719-120-78	DIODE	RD6.2ES-L3
D011	8-719-120-78	DIODE	RD6.2ES-L3
D271	8-719-110-36	DIODE	RD13ES-B2
D272	8-719-911-19	DIODE	1SS119
D501	8-719-911-19	DIODE	1SS119
D504	8-719-911-55	DIODE	U05G
D506	8-719-800-76	DIODE	1SS226
D508	8-719-911-19	DIODE	1SS119
D509	8-719-911-19	DIODE	1SS119
D511	8-719-911-55	DIODE	U05G
D512	8-719-911-55	DIODE	U05G
D513	8-719-928-85	DIODE	HZS4.7NB2
D601 ⚠	8-719-946-90	DIODE	KBU4JL-6088
D602	8-719-300-33	DIODE	RU-3AM
D603	8-719-911-55	DIODE	U05G
D604	8-719-911-55	DIODE	U05G
D605	8-719-911-55	DIODE	U05G
D606	8-719-300-33	DIODE	RU-3AM
D607	8-719-300-33	DIODE	RU-3AM
D608	8-719-300-33	DIODE	RU-3AM
D609	8-719-929-71	DIODE	HZS33NB1
D610	8-719-300-59	DIODE	CTU-12S
D611	8-719-900-26	DIODE	ERD29-08J
D612	8-719-300-59	DIODE	CTU-12S
D613	8-719-979-85	DIODE	EGP20G
D614	8-719-979-85	DIODE	EGP20G
D616	8-719-120-78	DIODE	RD6.2ES-L3
D617	8-719-911-19	DIODE	1SS119
D618	8-719-109-89	DIODE	RD5.6ES-B2
D619	8-719-929-71	DIODE	HZS33NB1
D620	8-719-800-76	DIODE	1SS226
D621	8-719-929-71	DIODE	HZS33NB1
D622	8-719-911-19	DIODE	1SS119
D623	8-719-911-19	DIODE	1SS119
D624	8-719-911-19	DIODE	1SS119

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Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D630	8-719-110-39	DIODE RD15ES-B1	
D801	8-719-300-33	DIODE RU-3AM	
D802	8-719-300-33	DIODE RU-3AM	
D803	8-719-300-65	DIODE ES1F	
D804	8-719-911-55	DIODE U05G	
D805	8-719-911-55	DIODE U05G	
D806	8-719-945-80	DIODE ERC06-15S	
D807	8-719-945-80	DIODE ERC06-15S	
D808	8-719-900-26	DIODE ERD29-08J	
		<IC>	
IC001	8-759-501-66	IC SDA2083-B012	
IC002	8-752-332-82	IC CXD1050A-09P	
IC003	8-759-945-58	IC RC4558P	
IC005	8-759-748-56	IC SDA2546	
IC251	8-759-988-94	IC TDA2050	
	4-201-023-01	SPACER, INSULATING; IC251	
	4-812-134-00	RIVET NYLON, 3.5; IC251	
IC261	8-759-988-94	IC TDA2050	
	4-201-023-01	SPACER, INSULATING; IC261	
	4-812-134-00	RIVET NYLON, 3.5; IC261	
IC501	8-759-970-73	IC TEA2028B	
IC502	8-759-944-57	IC TDA8170	
IC601	8-759-988-95	IC TEA2260	
IC604	8-759-144-84	IC UPC24M05HF	
IC608	8-759-037-26	IC TYA7812CT	
		<COIL>	
L001	1-408-414-00	INDUCTOR 27UH	
L501	1-408-225-00	INDUCTOR 3.3UH	
L601	*1-420-872-00	COIL, AIR CORE	
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-671-31	INDUCTOR 47UH	
L605	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)	
L606	1-421-013-00	COIL (HORIZONTAL CHOKE) 25UH	
L607	1-410-671-31	INDUCTOR 47UH	
L803	1-459-104-00	COIL, DUST CORE	
L804	1-408-239-00	INDUCTOR 4.7MMH	
L805 ⚠	1-459-755-12	COIL, HORIZONTAL LINEARITY	
L806	1-459-111-00	COIL, DRAM CORE (CDI)	
L809	*1-420-872-00	COIL, AIR CORE	
L810 ⚠	1-421-982-12	PMC	
		<TRANSFORMER>	
LF1601 ⚠	1-421-866-12	LFT	
LF1602 ⚠	1-421-776-11	LFT	
LF1603 ⚠	1-421-592-21	TRANSFORMER, FERRITE	
T601 ⚠	1-450-038-11	S.R.T	
T602 ⚠	1-424-277-11	TRANSFORMER, TRIGGER PULSE	
T801 ⚠	1-437-090-21	HDT	
T802 ⚠	1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)	
		<IC LINK>	
PS601 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS602 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS603 ⚠	1-532-679-91	LINK, IC (ICP-N15) 0.6A	
		<TRANSISTOR>	
Q001	8-729-901-01	TRANSISTOR DTC144EK	
Q002	8-729-901-06	TRANSISTOR DTA144EK	
Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
Q005	8-729-901-01	TRANSISTOR DTC144EK	
Q006	8-729-901-01	TRANSISTOR DTC144EK	
Q007	8-729-271-22	TRANSISTOR 2SC2712-G	
Q008	8-729-271-22	TRANSISTOR 2SC2712-G	
Q009	8-729-271-22	TRANSISTOR 2SC2712-G	
Q251	8-729-271-22	TRANSISTOR 2SC2712-G	
Q261	8-729-271-22	TRANSISTOR 2SC2712-G	
Q271	8-729-271-22	TRANSISTOR 2SC2712-G	
Q502	8-729-216-22	TRANSISTOR 2SA1162-G	
Q505	8-729-140-96	TRANSISTOR 2SD774-34	
Q506	8-729-140-97	TRANSISTOR 2SB734-34	
Q507	8-729-216-22	TRANSISTOR 2SA1162-G	
Q598	8-729-216-22	TRANSISTOR 2SA1162-G	
Q601	8-729-111-67	TRANSISTOR 2SB1094-L	
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
Q603	8-729-111-67	TRANSISTOR 2SB1094-L	
Q604	8-729-216-22	TRANSISTOR 2SA1162-G	
Q605	8-729-271-22	TRANSISTOR 2SC2712-G	
Q606	8-729-271-22	TRANSISTOR 2SC2712-G	
Q607	8-729-920-92	TRANSISTOR 2SD2096-BF	
Q608	8-729-271-22	TRANSISTOR 2SC2712-G	
Q609	8-729-320-62	TRANSISTOR 2SD789-34	
Q801	8-729-271-22	TRANSISTOR 2SC2712-G	
Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	
		<RESISTOR>	
R001	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R002	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R003	1-249-417-11	CARBON 1K 5% 1/4W	
R004	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R005	1-249-417-11	CARBON 1K 5% 1/4W	
R006	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R007	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R008	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R009	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R010	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R011	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R013	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R014	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R015	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R016	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R017	1-216-748-11	METAL GLAZE 39K 5% 1/10W	
R018	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R019	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R020	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R021	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R022	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R023	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R024	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R025	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R026	1-249-417-11	CARBON 1K 5% 1/4W	
R027	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R028	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R029	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R030	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R031	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R032	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R033	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R034	1-216-077-00	METAL GLAZE 15K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R035	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R036	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R037	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R038	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R039	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R040	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R042	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R043	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R044	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R045	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R046	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R047	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R048	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R049	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R050	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R051	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R052	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R053	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R054	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R055	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R056	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R057	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R058	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R059	1-249-417-11	CARBON	1K	5%	1/4W	
R060	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R061	1-249-417-11	CARBON	1K	5%	1/4W	
R062	1-249-417-11	CARBON	1K	5%	1/4W	
R063	1-249-429-11	CARBON	10K	5%	1/4W	
R064	1-249-417-11	CARBON	1K	5%	1/4W	
R065	1-249-429-11	CARBON	10K	5%	1/4W	
R066	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R067	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R068	1-249-417-11	CARBON	1K	5%	1/4W	
R069	1-249-417-11	CARBON	1K	5%	1/4W	
R070	1-249-417-11	CARBON	1K	5%	1/4W	
R071	1-249-417-11	CARBON	1K	5%	1/4W	
R072	1-249-417-11	CARBON	1K	5%	1/4W	
R073	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R074	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R075	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R076	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R077	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R078	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R251	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R252	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R253	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R254	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R255	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R256	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R257	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R258	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R259	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R261	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R262	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R263	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R264	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R265	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R266	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R267	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R268	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R269	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R271	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R272	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R273	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R500	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R501	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R502	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R503	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R504	1-249-420-11	CARBON	1.8K	5%	1/4W	
R505	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R506	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R509	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R510	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R514	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R515	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R517	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R518	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R519	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R520	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R521	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R522	1-249-441-11	CARBON	100K	5%	1/4W	
R523	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R524	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R525	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R526	1-249-409-11	CARBON	220	5%	1/4W	F
R527	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R528	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R529	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F
R531	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R532	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R533	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R534	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R535	1-249-749-00	CARBON	2.2M	5%	1/4W	
R536	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R537	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R538	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R539	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R540	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R541	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R542	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R543	1-249-451-11	CARBON	2.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	
R545	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R546	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R547	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R548	1-216-349-00	METAL OXIDE	1	5%	1W	F
R549	1-216-454-11	METAL OXIDE	390	5%	2W	F
R550	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R551	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R553	1-216-869-11	METAL OXIDE	1K	5%	1W	
R554	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R555	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R556	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R557	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R558	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R559	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R560	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R591	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R592	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R593	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R594	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R597	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R598	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R600	1-249-381-11	CARBON	1	5%	1/4W	
R601	1-216-353-00	METAL OXIDE	2.2	5%	1W	F

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D **H1** **H2** **J1**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R603	1-216-469-11	METAL OXIDE	12	5%	3W	F
R604	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R605	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R606	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R607	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R608 ⚠	1-216-488-51	METAL OXIDE	18K	5%	3W	F
R609	1-216-007-00	METAL GLAZE	18	5%	1/10W	
R610	1-244-941-00	CARBON	680K	5%	1/2W	
R611	1-216-015-00	METAL GLAZE	39	5%	1/10W	
R612	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R613	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R614	1-205-758-11	WIREWOUND	100	10%	10W	F
R616	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R617	1-249-411-11	CARBON	330	5%	1/4W	
R618	1-216-431-11	METAL OXIDE	560	5%	1W	F
R619	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R620	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R621	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R622	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R623	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R624	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R625	1-215-865-11	METAL OXIDE	220	5%	1W	F
R626	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R628	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R629	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R633	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R634	1-216-430-11	METAL OXIDE	390	5%	1W	F
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R643	1-217-189-21	WIREWOUND	0.12	5%	2W	F
R651	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R653	1-205-758-11	WIREWOUND	100	10%	10W	F
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F
R806	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R807	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R809	1-202-821-11	SOLID	1.8K	10%	1/2W	
R810	1-202-818-00	SOLID	1K	10%	1/2W	
R811	1-215-882-00	METAL OXIDE	22	5%	2W	F
R812	1-249-494-11	CARBON	68K	5%	1/2W	
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F
R816	1-215-868-00	METAL OXIDE	680	5%	1W	F
R817	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-247-725-11	CARBON	10K	5%	1/4W	F
R822 ⚠	1-217-778-61	FUSIBLE	1K	5%	1W	F
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R827	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R828	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R829	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R831	1-249-451-11	CARBON	2.2	5%	1/4W	
R1601 ⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1602 ⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R1603 ⚠	1-217-328-11	WIREWOUND	2.7	10%	7W	F
R1604 ⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1605 ⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W	
R5501	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5503	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R5504	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R5505	1-216-001-00	METAL GLAZE	10	5%	1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
RV501	1-238-013-11	RES, ADJ, CARBON 2.2K				
RV502	1-238-016-11	RES, ADJ, CARBON 10K				
RV601	1-238-011-11	RES, ADJ, CARBON 470				

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK				

<THERMISTOR>

THP601 ⚠	1-808-059-31	THERMISTOR, POSITIVE				

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	*1-633-409-11	H1 BOARD				
		********				
	1-562-837-11	JACK				
	*1-564-512-11	PLUG, CONNECTOR 9P (KV-C2531D ONLY)				
	*1-568-879-51	PIN, CONNECTOR 4P				
	*1-568-881-51	PIN, CONNECTOR 6P				
	1-569-473-11	JACK BLOCK, PIN 3P (KV-C2531D ONLY)				

<RESISTOR>

R1651	1-249-413-11	CARBON	470	5%	1/4W	
R1652	1-249-413-11	CARBON	470	5%	1/4W	

<SWITCH>

S1651	1-571-532-21	SWITCH, TACTIL				
S1652	1-571-532-21	SWITCH, TACTIL				
S1653	1-571-532-21	SWITCH, TACTIL				

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	*1-633-410-11	H2 BOARD				
		********				
	*1-568-882-51	PIN, CONNECTOR 7P				
	*4-374-987-01	GUIDE, LIGHT				
	*4-381-686-01	BRACKET (B), LIGHT GUIDE				

<DIODE>

D1651	8-719-948-31	DIODE LD-201VR				
	*4-387-825-01	HOLDER, LED; D1651				
D1652	8-719-948-31	DIODE LD-201VR				
	*4-387-825-01	HOLDER, LED; D1652				
D1654	8-719-948-31	DIODE LD-201VR				
	*4-387-825-01	HOLDER, LED; D1654				

<IC>

IC1651	8-741-138-70	IC BX-1387				

<RESISTOR>

R1662	1-249-413-11	CARBON	470	5%	1/4W	

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	*A-1651-014-A	J1 BOARD, COMPLETE				
		**********				
	1-561-534-41	SOCKET 21P				
	*1-564-518-11	PLUG, CONNECTOR 3P				

J1

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*1-564-524-11	PLUG, CONNECTOR 9P			
	*1-564-527-11	PLUG, CONNECTOR 12P			
	*1-506-641-11	CONNECTOR, HINGE (TAB) 18P			
		<CAPACITOR>			
C203	1-124-925-11	ELECT 2.2MF	20%	50V	
C205	1-124-927-11	ELECT 4.7MF	20%	50V	
C206	1-124-925-11	ELECT 2.2MF	20%	50V	
C207	1-124-927-11	ELECT 4.7MF	20%	50V	
C213	1-126-233-11	ELECT 22MF	20%	50V	
C214	1-106-363-00	MYLAR 0.0068MF	10%	400V	
C217	1-106-363-00	MYLAR 0.0068MF	10%	400V	
C218	1-106-375-12	MYLAR 0.022MF	10%	250V	
C219	1-106-375-12	MYLAR 0.022MF	10%	250V	
C220	1-108-620-11	MYLAR 0.0033MF	10%	100V	
C221	1-108-620-11	MYLAR 0.0033MF	10%	100V	
C222	1-106-385-00	MYLAR 0.056MF	10%	100V	
C223	1-106-385-00	MYLAR 0.056MF	10%	100V	
C224	1-106-367-00	MYLAR 0.01MF	10%	400V	
C225	1-136-173-00	FILM 0.47MF	5%	50V	
C226	1-136-173-00	FILM 0.47MF	5%	50V	
C227	1-106-375-12	MYLAR 0.022MF	10%	250V	
C228	1-106-379-12	MYLAR 0.033MF	10%	250V	
C229	1-106-371-00	MYLAR 0.015MF	10%	400V	
C230	1-106-371-00	MYLAR 0.015MF	10%	400V	
C231	1-124-902-00	ELECT 0.47MF	20%	50V	
C232	1-123-875-11	ELECT 10MF	20%	50V	
C233	1-163-005-11	CERAMIC CHIP 470PF	10%	50V	
C234	1-163-005-11	CERAMIC CHIP 470PF	10%	50V	
C235	1-163-005-11	CERAMIC CHIP 470PF	10%	50V	
C236	1-163-005-11	CERAMIC CHIP 470PF	10%	50V	
C237	1-124-902-00	ELECT 0.47MF	20%	50V	
C238	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	
C239	1-126-103-11	ELECT 470MF	20%	16V	
C240	1-163-018-00	CERAMIC CHIP 0.0056MF	10%	50V	
C241	1-163-018-00	CERAMIC CHIP 0.0056MF	10%	50V	
C242	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C243	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C244	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C245	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C1401	1-123-875-11	ELECT 10MF	20%	50V	
C1402	1-126-103-11	ELECT 470MF	20%	16V	
C1403	1-163-003-11	CERAMIC CHIP 330PF	10%	50V	
C1404	1-106-220-00	MYLAR 0.1MF	10%	100V	
C1405	1-136-017-00	CERAMIC CHIP 0.0047MF		50V	
C1406	1-106-220-00	MYLAR 0.1MF	10%	100V	
C1407	1-124-910-11	ELECT 47MF	20%	50V	
C1408	1-124-122-11	ELECT 100MF	20%	50V	
C1409	1-126-233-11	ELECT 22MF	20%	50V	
C1410	1-123-875-11	ELECT 10MF	20%	50V	
C1411	1-123-875-11	ELECT 10MF	20%	50V	
C1412	1-124-910-11	ELECT 47MF	20%	50V	
C1413	1-124-910-11	ELECT 47MF	20%	50V	
C1414	1-123-875-11	ELECT 10MF	20%	50V	
C1415	1-106-220-00	MYLAR 0.1MF	10%	100V	
C1416	1-106-220-00	MYLAR 0.1MF	10%	100V	
C1417	1-124-120-11	ELECT 220MF	20%	16V	
C1418	1-163-003-11	CERAMIC CHIP 330PF	10%	50V	
C1419	1-163-003-11	CERAMIC CHIP 330PF	10%	50V	
C1425	1-124-902-00	ELECT 0.47MF	20%	50V	
C1426	1-124-902-00	ELECT 0.47MF	20%	50V	
C1427	1-136-017-00	CERAMIC CHIP 0.0047MF		50V	
C1428	1-136-017-00	CERAMIC CHIP 0.0047MF		50V	
C1429	1-136-017-00	CERAMIC CHIP 0.0047MF		50V	
C1430	1-163-003-11	CERAMIC CHIP 330PF	10%	50V	
C1431	1-126-529-11	ELECT 0.47MF	20%	50V	
C1432	1-124-902-00	ELECT 0.47MF	20%	50V	
C1433	1-124-122-11	ELECT 100MF	20%	50V	
C1436	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	
C1437	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	
C1438	1-106-367-00	MYLAR 0.01MF	10%	400V	
C1439	1-106-367-00	MYLAR 0.01MF	10%	400V	
C1440	1-123-875-11	ELECT 10MF	20%	50V	
C1441	1-123-875-11	ELECT 10MF	20%	50V	
C1442	1-106-220-00	MYLAR 0.1MF	10%	100V	
C1443	1-106-220-00	MYLAR 0.1MF	10%	100V	
C1444	1-124-910-11	ELECT 47MF	20%	50V	
C1445	1-102-824-00	CERAMIC 470PF	5%	50V	
C1446	1-102-824-00	CERAMIC 470PF	5%	50V	
C1501	1-124-927-11	ELECT 4.7MF	20%	50V	
C1502	1-124-791-11	ELECT 1MF	20%	50V	
C1503	1-108-614-11	MYLAR 0.001MF	10%	100V	
C1504	1-124-910-11	ELECT 47MF	20%	50V	
C1505	1-106-383-00	MYLAR 0.047MF	10%	100V	
C1507	1-108-620-11	MYLAR 0.0033MF	10%	100V	
C1508	1-124-791-11	ELECT 1MF	20%	50V	
C1509	1-124-791-11	ELECT 1MF	20%	50V	
C1511	1-124-927-11	ELECT 4.7MF	20%	50V	
C1512	1-106-363-00	MYLAR 0.0068MF	10%	400V	
C1513	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	
C1514	1-106-375-12	MYLAR 0.022MF	10%	250V	
C1515	1-102-117-00	CERAMIC 820PF	10%	50V	
		<CONNECTOR>			
CN1401	1-565-838-11	PIN JACK BLOCK 2P			
		<DIODE>			
D201	8-719-929-16	DIODE HZS9.1NB3			
D202	8-719-929-16	DIODE HZS9.1NB3			
D205	8-719-929-08	DIODE HZS7.5NB3			
D206	8-719-929-08	DIODE HZS7.5NB3			
D1401	8-719-929-08	DIODE HZS7.5NB3			
D1404	8-719-929-08	DIODE HZS7.5NB3			
D1405	8-719-929-08	DIODE HZS7.5NB3			
D1407	8-719-929-20	DIODE HZS10NB3			
D1408	8-719-929-16	DIODE HZS9.1NB3			
D1409	8-719-929-16	DIODE HZS9.1NB3			
D1410	8-719-929-16	DIODE HZS9.1NB3			
D1415	8-719-929-08	DIODE HZS7.5NB3			
D1418	8-719-929-08	DIODE HZS7.5NB3			
D1419	8-719-929-08	DIODE HZS7.5NB3			
D1420	8-719-929-08	DIODE HZS7.5NB3			
D1421	8-719-929-08	DIODE HZS7.5NB3			
D1422	8-719-929-08	DIODE HZS7.5NB3			
D1423	8-719-929-08	DIODE HZS7.5NB3			
D1424	8-719-929-08	DIODE HZS7.5NB3			
D1425	8-719-929-08	DIODE HZS7.5NB3			
D1426	8-719-929-08	DIODE HZS7.5NB3			
D1501	8-719-300-33	DIODE RU-3AM			
D1502	8-719-911-19	DIODE 1SS119			
D1503	8-719-911-19	DIODE 1SS119			
D1504	8-719-911-19	DIODE 1SS119			

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1505	8-719-911-19	DIODE 1SS119	
D1506	8-719-929-79	DIODE HZS36NB4	
D1507	8-719-911-19	DIODE 1SS119	
D1510	8-719-911-19	DIODE 1SS119	
		<IC>	
IC201	8-759-013-17	IC TDA6200	
IC1401	8-752-032-27	IC CXA1114P	
IC1402	8-759-946-32	IC TEA2014A	
IC1403	8-759-040-53	IC MC14053BCP	
IC1501	8-759-942-16	IC TEA2031A	
		<TRANSISTOR>	
Q201	8-729-271-22	TRANSISTOR 2SC2712-G	
Q202	8-729-271-22	TRANSISTOR 2SC2712-G	
Q1401	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1402	8-729-271-22	TRANSISTOR 2SC2712-G	
Q1403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1404	8-729-173-38	TRANSISTOR 2SA733-K	
		<RESISTOR>	
R201	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R202	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W	
R203	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R204	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R205	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R206	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R207	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R208	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R209	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R210	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R211	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R212	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R213	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R214	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R215	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R216	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R217	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R218	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R219	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R220	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R221	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R222	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R223	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R224	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R225	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R226	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R227	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R228	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R229	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R230	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R231	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R232	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R233	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R234	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R240	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R241	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R242	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R243	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R244	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R245	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R246	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R247	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R248	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R249	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R250	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R1401	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R1402	1-216-170-00	METAL GLAZE 68 5% 1/8W	
R1403	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1404	1-216-178-00	METAL GLAZE 150 5% 1/8W	
R1405	1-249-429-11	CARBON 10K 5% 1/4W	
R1407	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1408	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1409	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1410	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1411	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1412	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1413	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1414	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1415	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R1416	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R1417	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R1418	1-247-738-11	CARBON 82 5% 1/2W	F
R1422	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1423	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1424	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1425	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1426	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1427	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R1428	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1429	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1430	1-216-170-00	METAL GLAZE 68 5% 1/8W	
R1431	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1432	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1433	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1434	1-249-393-11	CARBON 10 5% 1/4W	F
R1437	1-249-429-11	CARBON 10K 5% 1/4W	
R1440	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1441	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1442	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1443	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1444	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1445	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R1446	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1447	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1448	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1452	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1453	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1454	1-216-180-00	METAL GLAZE 180 5% 1/8W	
R1455	1-216-180-00	METAL GLAZE 180 5% 1/8W	
R1457	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1459	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1460	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1461	1-216-190-00	METAL GLAZE 470 5% 1/8W	
R1462	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R1463	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R1464	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R1465	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R1466	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1467	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1468	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1469	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1470	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1471	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R1472	1-216-023-00	METAL GLAZE 82 5% 1/10W	

J1 **J2** **IFG**

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1473	1-216-023-00	METAL GLAZE	82	5%	1/10W
R1474	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R1476	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1477	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1478	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R1480	1-216-190-00	METAL GLAZE	470	5%	1/8W
R1482	1-216-178-00	METAL GLAZE	150	5%	1/8W
R1483	1-216-178-00	METAL GLAZE	150	5%	1/8W
R1484	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1485	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1486	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1487	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1488	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1489	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1501	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R1502	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R1503	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R1504	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R1506	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R1509	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R1510	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R1511	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1512	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1513	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1515	1-216-117-00	METAL GLAZE	680K	5%	1/10W
R1516	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R1517	1-216-033-00	METAL GLAZE	220	5%	1/10W
R1519	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R1520	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R1521	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R1556	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W

<VARIABLE RESISTOR>

RV1501	1-238-023-11	RES, ADJ, CARBON 470K
RV1502	1-228-994-00	RES, ADJ, CARBON 10K
RV1503	1-238-017-11	RES, ADJ, CARBON 22K
RV1504	1-238-012-11	RES, ADJ, CARBON 1K
RV1505	1-238-023-11	RES, ADJ, CARBON 470K
RV1506	1-238-017-11	RES, ADJ, CARBON 22K
RV1507	1-238-009-11	RES, ADJ, CARBON 220
RV1508	1-238-016-11	RES, ADJ, CARBON 10K
RV1509	1-238-023-11	RES, ADJ, CARBON 470K

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*1-633-411-11 J2 BOARD
****

1-537-088-21	TERMINAL BOARD, INPUT/OUTPUT	
*1-560-278-21	PLUG, CONNECTOR 4P	
*1-564-517-11	PLUG, CONNECTOR 2P	
*1-564-519-11	PLUG, CONNECTOR 4P	

<CAPACITOR>

C1751	1-101-005-00	CERAMIC	0.022MF	50V
C1752	1-101-005-00	CERAMIC	0.022MF	50V
C1755	1-102-114-00	CERAMIC	470PF 10%	50V
C1756	1-102-114-00	CERAMIC	470PF 10%	50V

<COIL>

L1751	1-412-240-11	INDUCTOR, WIDE BAND
L1752	1-412-240-11	INDUCTOR, WIDE BAND

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*A-1654-003-A IFG BOARD, COMPLETE
****

*1-565-488-11 CONNECTOR, BOARD TO BOARD 12P

<CAPACITOR>

C1	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C2	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C3	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C4	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C5	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C6	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C7	1-124-791-11	ELECT	1MF	20%	50V
C8	1-123-875-11	ELECT	10MF	20%	50V
C9	1-130-471-00	MYLAR	0.001MF	10%	50V
C10	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C11	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C12	1-136-298-00	FILM	0.0033MF	2%	100V
C13	1-124-477-11	ELECT	47MF	20%	16V
C14	1-124-477-11	ELECT	47MF	20%	16V
C15	1-124-477-11	ELECT	47MF	20%	16V
C16	1-124-477-11	ELECT	47MF	20%	16V
C17	1-123-875-11	ELECT	10MF	20%	50V
C18	1-106-367-00	MYLAR	0.01MF	10%	400V
C19	1-106-367-00	MYLAR	0.01MF	10%	400V
C20	1-126-233-11	ELECT	22MF	20%	50V
C21	1-126-233-11	ELECT	22MF	20%	50V
C22	1-106-220-00	MYLAR	0.1MF	10%	100V
C23	1-106-228-00	MYLAR	0.22MF	10%	100V
C24	1-124-963-11	ELECT	33MF	20%	16V
C25	1-106-375-12	MYLAR	0.022MF	10%	250V
C26	1-106-383-00	MYLAR	0.047MF	10%	100V
C27	1-124-791-11	ELECT	1MF	20%	50V
C28	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C29	1-124-791-11	ELECT	1MF	20%	50V
C30	1-124-791-11	ELECT	1MF	20%	50V
C31	1-106-367-00	MYLAR	0.01MF	10%	400V
C32	1-130-479-00	MYLAR	0.0047MF	5%	50V
C33	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C34	1-106-228-00	MYLAR	0.22MF	10%	100V
C35	1-123-875-11	ELECT	10MF	20%	50V
C36	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C37	1-124-477-11	ELECT	47MF	20%	16V
C38	1-124-477-11	ELECT	47MF	20%	16V

<FILTER>

CDA1	1-404-751-11	DISCRIMINATOR, CERAMIC
CDA2	1-404-750-11	DISCRIMINATOR, CERAMIC
SFT1	1-527-840-00	FILTER, CERAMIC
SFT2	1-527-839-00	FILTER, CERAMIC

<DIODE>

D3	8-719-400-18	DIODE MA152WK

<IC>

IC1	8-759-003-90	IC TBA129
IC2	8-759-003-90	IC TBA129

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF NO.	PART NO.	DESCRIPTION				REMARK
IC3	8-759-030-48	IC TDA6600-2				
IC4	8-759-946-99	IC TDA2595-V7				
		<COIL>				
L1	1-408-410-00	INDUCTOR	12UH			
L2	1-408-410-00	INDUCTOR	12UH			
L3	1-410-064-11	INDUCTOR	2.7MMH			
L4	1-408-421-00	INDUCTOR	100UH			
L5	1-408-421-00	INDUCTOR	100UH			
		<TRANSISTOR>				
Q2	8-729-901-00	TRANSISTOR DTC124EK				
Q3	8-729-216-22	TRANSISTOR 2SA1162-G				
Q4	8-729-901-00	TRANSISTOR DTC124EK				
		<RESISTOR>				
JR8	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR10	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R1	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R2	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R5	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R6	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R7	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R9	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R10	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R11	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R12	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R15	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R16	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R17	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R18	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R19	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R20	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R22	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R24	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R25	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
		<VARIABLE RESISTOR>				
RV1	1-238-016-11	RES, ADJ, CARBON 10K				
RV2	1-238-019-11	RES, ADJ, CARBON 47K				

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MISCELLANEOUS
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	1-236-510-11	NETWORK, DIVIDING (KV-C2531D ONLY)
⚠	1-426-372-11	COIL, DEMAGNETIZATION
⚠	1-451-311-21	DEFLECTION YOKE (Y25FXA)
	1-452-032-00	MAGNET, DISK; 10MM φ
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ
	1-503-642-41	SPEAKER (KV-C2521D ONLY)
	1-544-146-11	SPEAKER (KV-C2531D ONLY)
	1-544-147-11	SPEAKER (KV-C2531D ONLY)
⚠	1-575-487-11	CORD,POWER (WITH NOISE FILTER)
V901 ⚠	8-733-224-05	PICTURE TUBE (A59JWC60X)

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ACCESSORIES AND PACKING MATERIALS
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PART NO.	DESCRIPTION	REMARK
1-465-363-11	COMMANDER, REMOTE (RM-689)	
4-200-241-11	MANUAL, INSTRUCTION (KV-C2521D ONLY)	
4-200-262-11	MANUAL, INSTRUCTION (KV-C2531D ONLY)	
*4-200-236-01	CUSHION (UPPER) (ASSY)	
*4-200-237-01	INDIVIDUAL CARTON	
*4-200-238-01	CUSHION, LOWER	
*4-381-155-01	BAG, PROTECTION	

9-964-542-01

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